

**MODEL # SN1645**  
**Style Desc. ANGLE DRIVE**Product Description

Model SN1645 is a right angle add-on high speed transmission designed to permit attitude testing of constant speed drives and generators. This model can be installed on existing test stand with the output shaft rotated at any 7 1/2 degree increment from 112 degrees above, to 135 degrees below the horizontal. This angular range is from 11 o'clock through 7:30 o'clock when looking at the output of the test stand. The gears are precision ground spiral level. The bearings are anti-friction and the case is stress relieved fabricated steel.

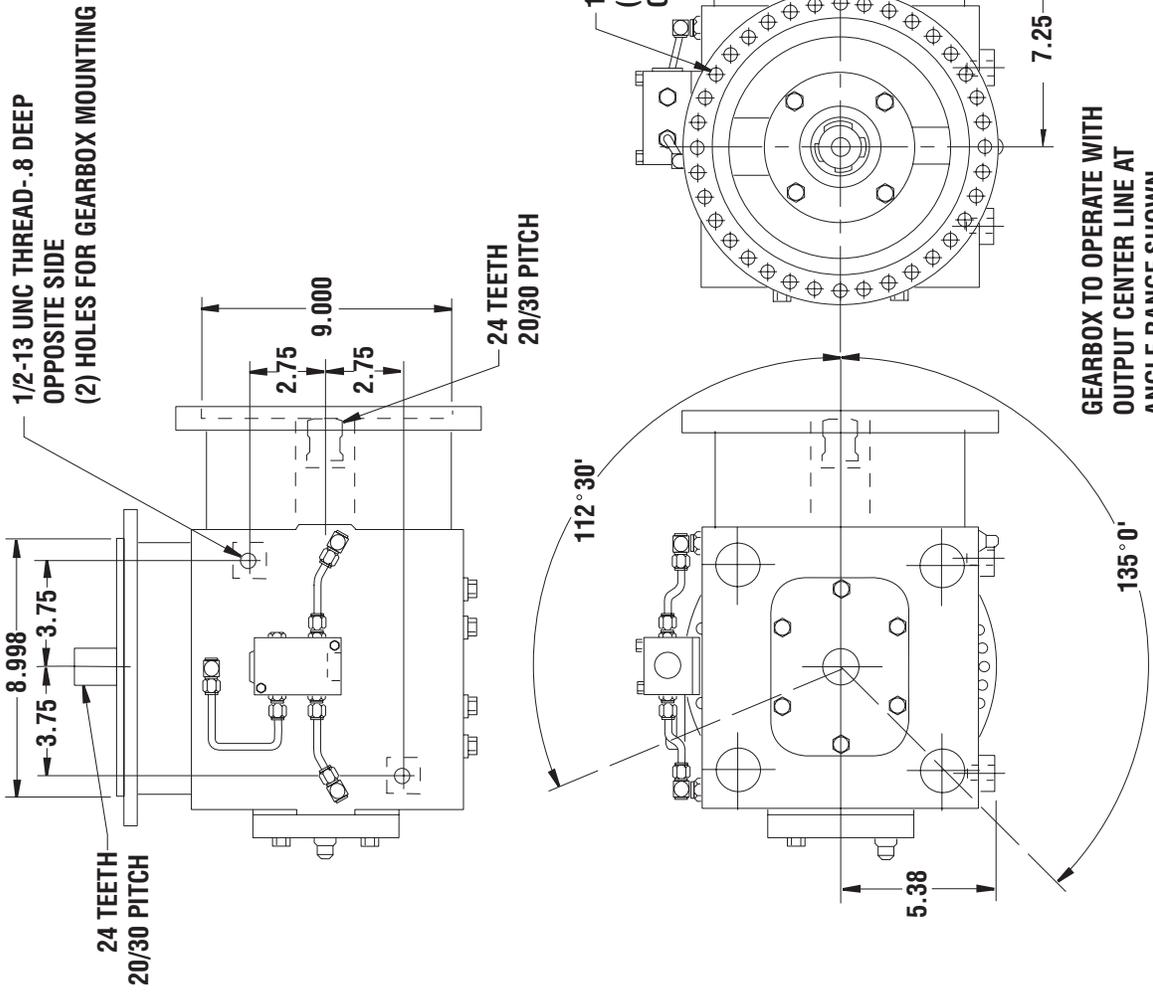
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<b>CAPACITY:</b>	300 HP @ 20,000 RPM
<b>MAXIMUM RPM:</b>	20,000 RPM
<b>RATIOS:</b>	1 to 1, 1 to 2 overspeed
<b>INPUT:</b>	AND10267 type XVII with the exception that there are 48 holes in place of 12 holes.
<b>OUTPUT PAD:</b>	AND20007 with the exception that there are 36 holes in place of 12 studs.
<b>LUBRICATION REQUIREMENT:</b>	Mobil DTE medium (or equivalent)
<b>DIRECTION OF ROTATION:</b>	Bi-rotational.
<b>MAXIMUM ACCEL/DECEL:</b>	1000 RPM per second at output.
<b>MOUNTING SUPPORT:</b>	Two holes 1/2—13 on the bottom of the case for support.

9-Jun-06

# MODEL SN1645

RIGHT ANGLE DRIVE



GEARBOX TO OPERATE WITH  
OUTPUT CENTER LINE AT  
ANGLE RANGE SHOWN  
AT 7° 30' INCREMENTS

DO NOT USE DIMENSIONS ON THIS DRAWING FOR  
INSTALLATIONS. USE CERTIFIED PRINT PROVIDED  
WITH ORDERS.

**MODEL # SN2102**  
**Style Desc. HIGH SPEED**Product Description

Model SN2102 is a foot mounted high speed transmission designed for test stand use. It has a stub input shaft. The output shaft extends through both sides of the case and has a hole drilled through its length to support slip rings. There is a double train of gears that are helical, carburized and precision ground per AGMA class Q-12 for increased strength and quiet operation. The bearings are anti-friction. The case is stress relieved fabricated steel.

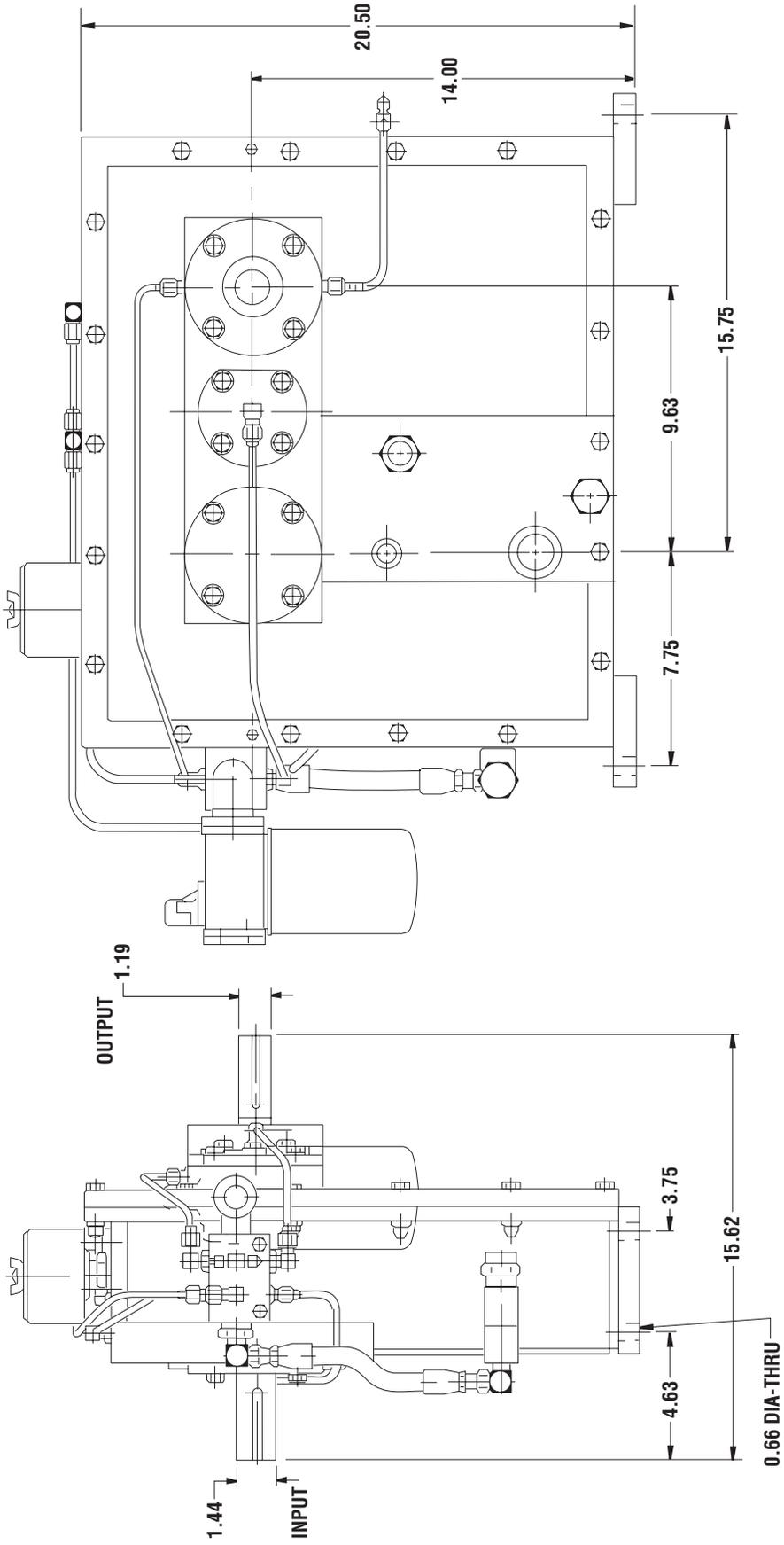
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<b>CAPACITY:</b>	150HP continuous
<b>MAXIMUM OUTPUT SPEED:</b>	30,000 RPM
<b>RATIO:</b>	Up to 16.676
<b>INPUT SHAFT:</b>	1.437" diameter with 3/8 X 3/16 keyway.
<b>OUTPUT:</b>	1.186" diameter with 2 keyways 5/16 X 5/32. Shaft extends through both sides of the case.
<b>CENTER DISTANCE:</b>	9.630"
<b>DIRECTION OF ROTATION:</b>	Bi-rotational—output is same as input.
<b>ACCEL/DECCEL RATE:</b>	2000 RPM/second maximum
<b>LUBRICATION:</b>	AGMA #1, ISO Viscosity Grade 46. Sump is in case. Motor/pump combination. 10 micron filter.
<b>COOLING:</b>	Heat exchanger with modulating water control valve.
<b>ACCESSORIES:</b>	Temperature/pressure switch. Oil level sight gauge. Thermocouple ports on high speed shaft bearings.
<b>SIZE:</b>	2.50" wide X 20.5" high X 15.62" long.
<b>WEIGHT:</b>	Approx. 1013 lbs.

9-Jun-06

# MODEL SN2102

HIGH SPEED



DO NOT USE DIMENSIONS ON THIS DRAWING FOR INSTALLATIONS. USE CERTIFIED PRINT PROVIDED WITH ORDERS.

**MODEL # SN2071**  
**Style Desc. HIGH SPEED**

Product Description

Model SN2071 is a foot mounted high speed dual increasing stage transmission designed for test stand use. The gearbox has a horizontal offset. The gears are helical, carburized and precision ground. The bearings are anti-friction. The case is stress relieved, fabricated steel.

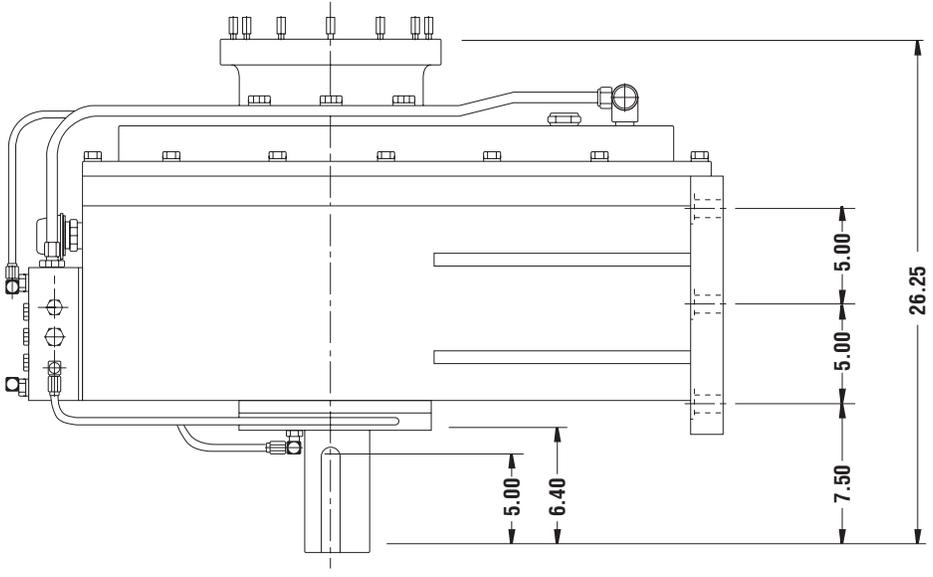
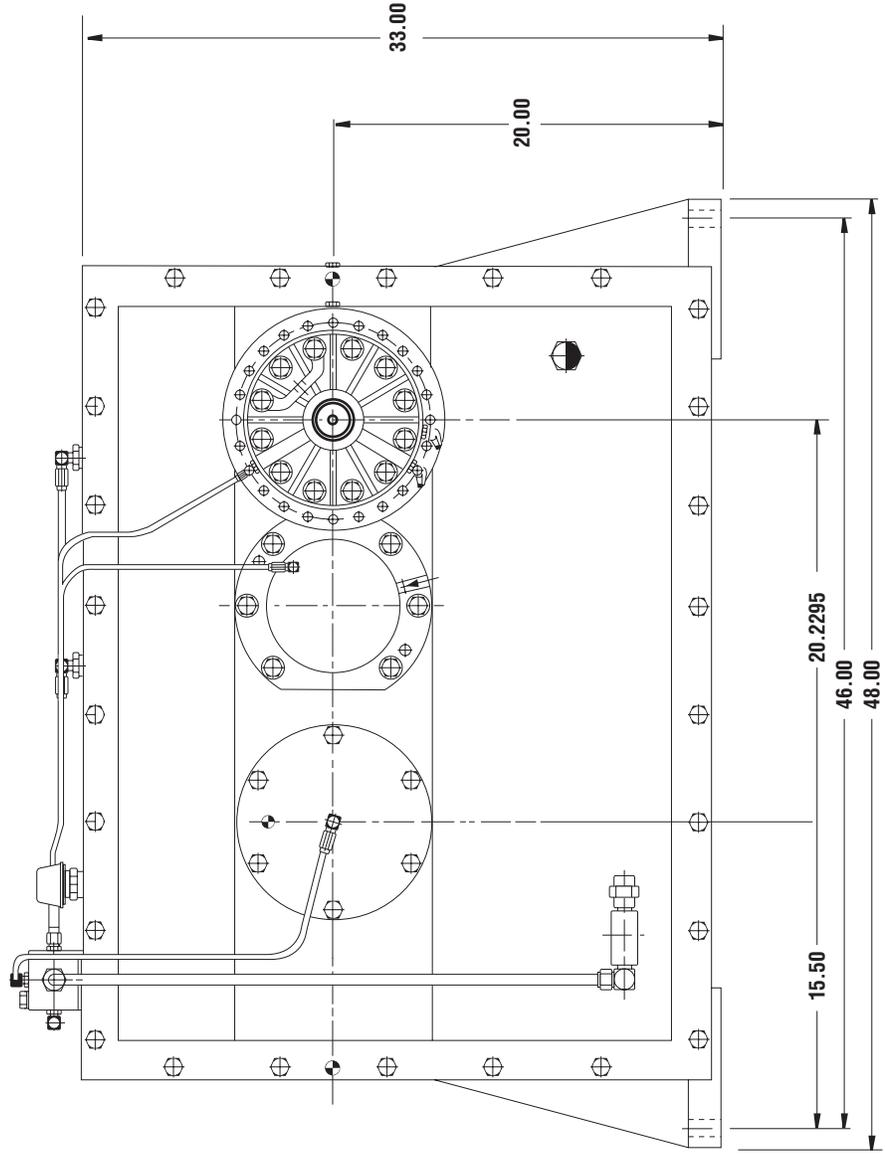
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<b>CAPACITY:</b>	300HP
<b>MAXIMUM OUTPUT SPEED:</b>	25,000 RPM
<b>RATIO:</b>	1.0 to 13.135
<b>INPUT SHAFT:</b>	3.250 diameter with 3/4 X 3/8 keyway.
<b>OUTPUT:</b>	AND20006 output pad.
<b>DIRECTION OF ROTATION:</b>	Bi-rotational
<b>ACCEL/DECEL RATE:</b>	2000 RPM/second maximum (Related to output speed).
<b>LUBRICATION REQUIREMENT:</b>	AGMA #1 oil level sight gauge. Sump is in the case.
<b>COOLING:</b>	Water to oil heat exchanger with modu- lating water control valve.
<b>OPTIONS:</b>	Output shaft, temp/pressure switch.

9-Jun-06

# MODEL SN2071

HIGH SPEED TRANSMISSION



DO NOT USE DIMENSIONS ON THIS DRAWING FOR INSTALLATIONS. USE CERTIFIED PRINT PROVIDED WITH ORDERS.

**MODEL # SN2057**  
**Style Desc. HIGH SPEED**Product Description

Model SN2057 is a foot mounted high speed transmission designed for test stand use. This model has a stub input shaft and output shaft. It has double increasing stages of helical, carburized and precision ground gears. The bearings are anti-friction. The case is stress relieved fabricated steel.

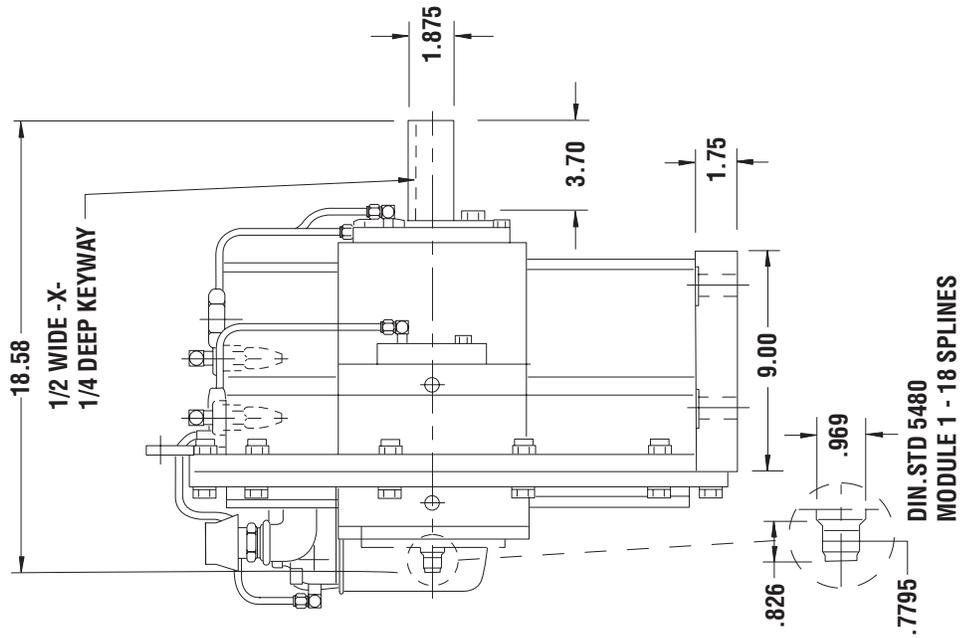
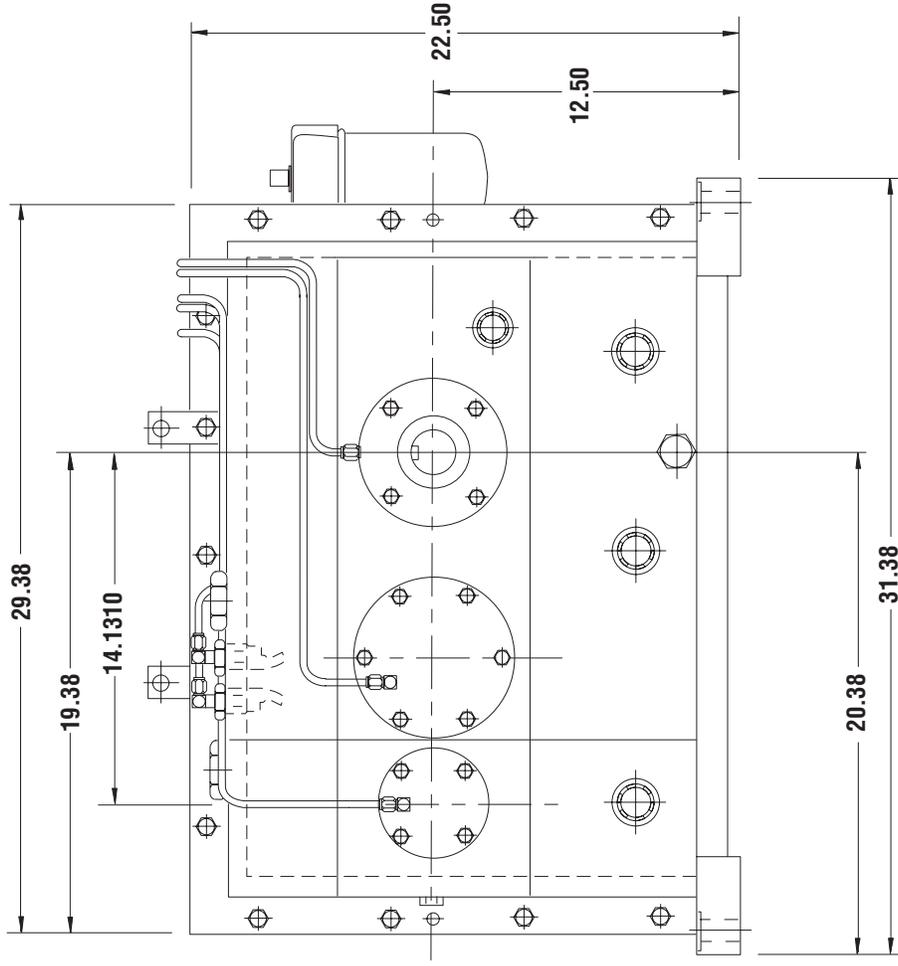
<b>CAPACITY:</b>	350HP, nominal
<b>MAXIMUM OUTPUT SPEED:</b>	50,000 RPM
<b>MAXIMUM INPUT SPEED</b>	6,000 RPM
<b>RATIOS:</b>	8.50, 11.96 (Contact Cotta for other available ratios)
<b>INPUT SHAFT:</b>	1.875 diameter with 1/2 X 1/4 keyway.
<b>OUTPUT:</b>	18 spline DIN STD 5480, 20.0 MM
<b>CENTER DISTANCE:</b>	14.131"
<b>DIRECTION OF ROTATION:</b>	Bi-rotational—output rotation is the same as input rotation.
<b>ACCEL/DECEL RATE:</b>	2000 RPM/second referred to the output shaft.
<b>LUBRICATION REQUIREMENT:</b>	Separate motor driven lube pump furnishing oil spray at gear meshes and bearings Filter and oil level gauge Use Velocite #10 oil Oil sump is in case.
<b>COOLING:</b>	Water to oil heat exchanger with modulating water control valve.
<b>ACCESSORIES:</b>	Temperature/pressure switch.
<b>OPTIONS:</b>	AND type output pads stub shafts. Changeable output ratios.
<b>WEIGHT:</b>	1650 lbs.

Contact Cotta for final approval on all applications providing information on the prime mover, ratio, application, speed and installation requirements.

9-Jun-06

# MODEL SN2057

HIGH SPEED



DO NOT USE DIMENSIONS ON THIS DRAWING FOR INSTALLATIONS. USE CERTIFIED PRINT PROVIDED WITH ORDERS.

**MODEL # SN2068**  
**Style Desc. RIGHT ANGLE DRIVE**

Product Description

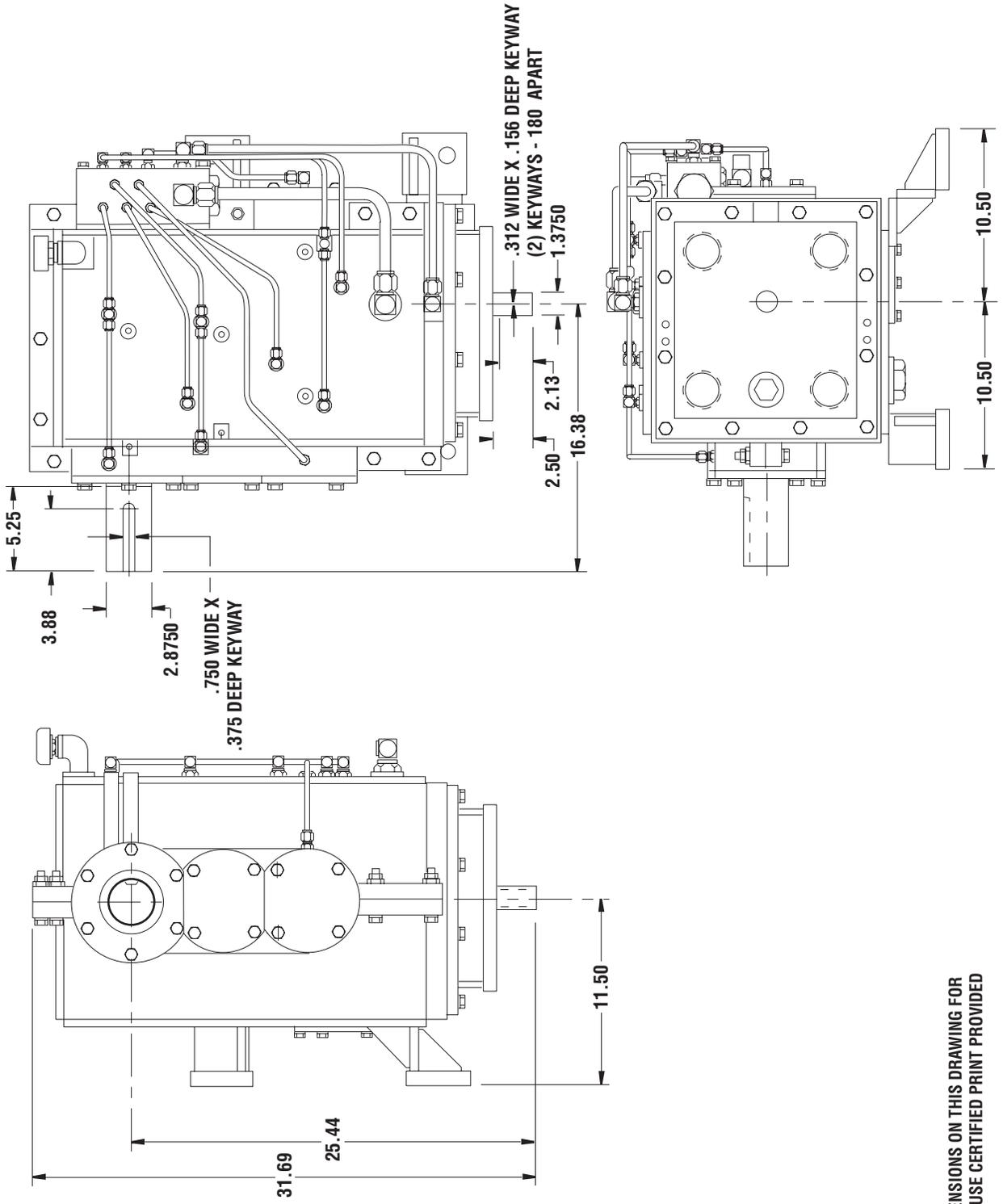
Model SN2068 is a high speed 90 degree right angle drive designed for test stand use. It is vertical wall mounted with high speed output shaft vertical down. The input double train gear set is helical, carburized and precision ground. The output gears are ground spiral bevel. The low speed bearings are anti-friction. The high speed bearings are tilting pad journal type. The case is stress relieved, fabricated steel.

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<b>CAPACITY:</b>	600 HP
<b>MAXIMUM OUTPUT SPEED:</b>	35,000 RPM
<b>RATIO:</b>	1.0 to 6.667
<b>INPUT SHAFT:</b>	2.875 diameter stub shaft with a .75 wide X .375 deep keyway.
<b>OUTPUT:</b>	1.375 diameter with a .312 wide X .156 deep keyway.
<b>LUBRICATION REQUIREMENT:</b>	Mil-L-23699, 50 GPM.
<b>DIRECTION OF ROTATION:</b>	Bi-rotational
<b>ACCESSORIES:</b>	60 tooth speed pick up.

9-Jun-06

**MODEL SN2068**  
RIGHT ANGLE DRIVE



DO NOT USE DIMENSIONS ON THIS DRAWING FOR INSTALLATIONS. USE CERTIFIED PRINT PROVIDED WITH ORDERS.

**MODEL # SN2055**  
**Style Desc. HIGH SPEED**Product Description

Model SN2055 is a foot mounted single increase high speed gearbox designed for test stand use. This model has a stub input and an AND20006 output pad. The gears are helical, carburized and precision ground per AGMA Q- 12. The bearings are anti-friction. The case is stress relieved fabricated steel.

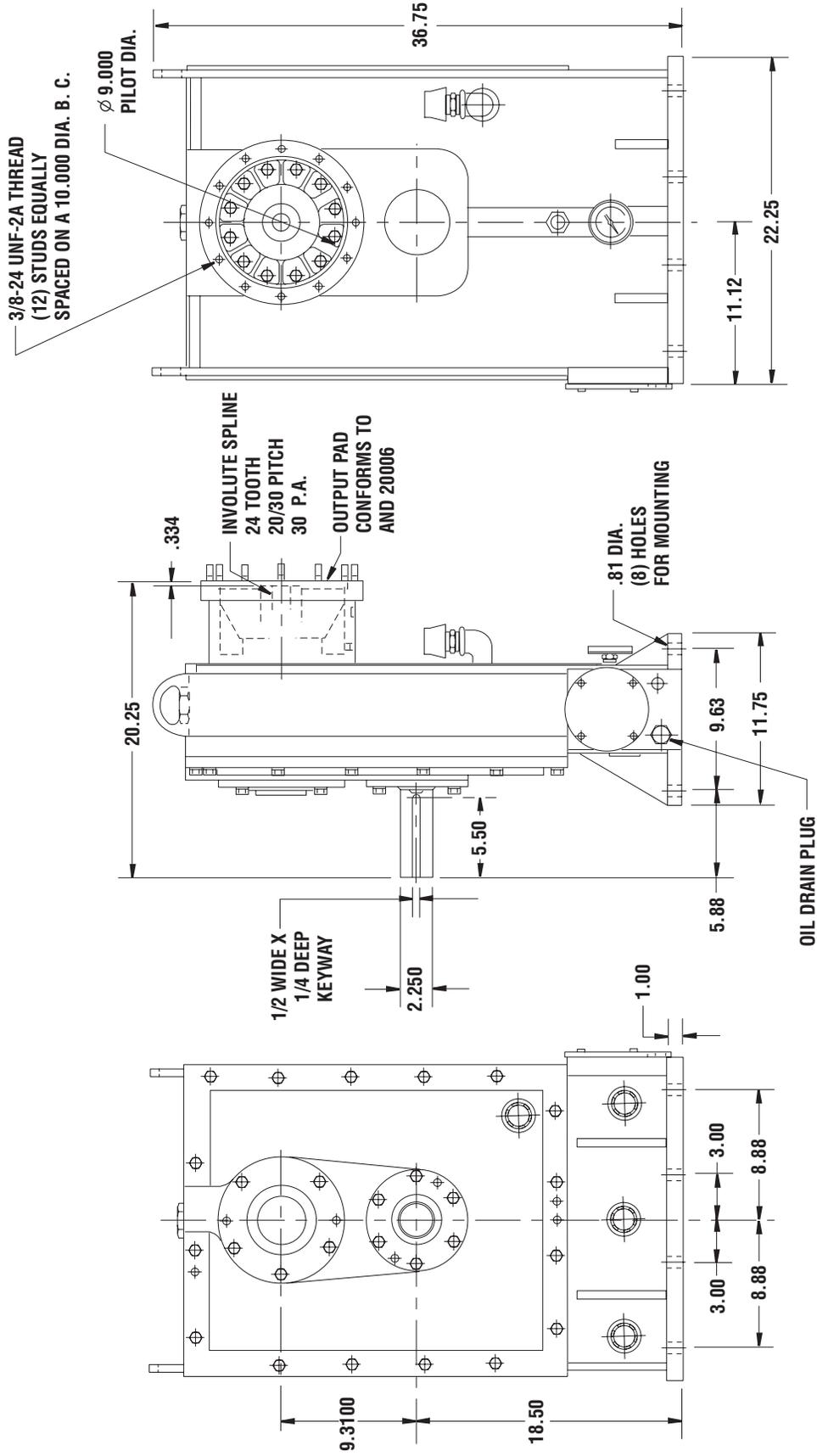
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<b>CAPACITY:</b>	600HP, nominal
<b>MAXIMUM OUTPUT SPEED:</b>	30,000 RPM
<b>RATIOS:</b>	1.29, 2.94, 3.18, 4.26, 6.10 (Contact Cotta for other available ratios)
<b>INPUT SHAFT:</b>	2.25" diameter X 10" long with keyway.
<b>OUTPUT:</b>	AND20006 Type XVI pad.
<b>OUTPUT ADAPTERS:</b>	1—16 teeth 20/30P .800P.D. 1—24 teeth 20/30P 1.20 P.D. 1—26 teeth 16/32P 1.625P.D.
<b>DIRECTION OF ROTATION:</b>	Bi-rotational—output opposite to input.
<b>ACCEL/DECEL RATE:</b>	2000 RPM/second at output shaft.
<b>LUBRICATION REQUIREMENT:</b>	AGMA Grade 1, ISO viscosity grade 46 Oil sump is in case
<b>COOLING:</b>	Water to oil heat exchanger with modulating water control valve.
<b>ACCESSORIES:</b>	Temperature/pressure switch.
<b>OPTIONS:</b>	Stub output shaft, 60 tooth gear for customers speed pick-up AND20007 output pad.
<b>WEIGHT:</b>	825 lbs.

9-Jun-06

# MODEL SN2055

HIGH SPEED



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**MODEL # SN2034**  
**Style Desc. HIGH SPEED**

Product Description

Model SN2034 is a foot mounted high speed transmission designed for test stand use. It has a single input shaft and two output pads with different ratios. The gears are helical, carburized and precision ground. The bearings are anti-friction.

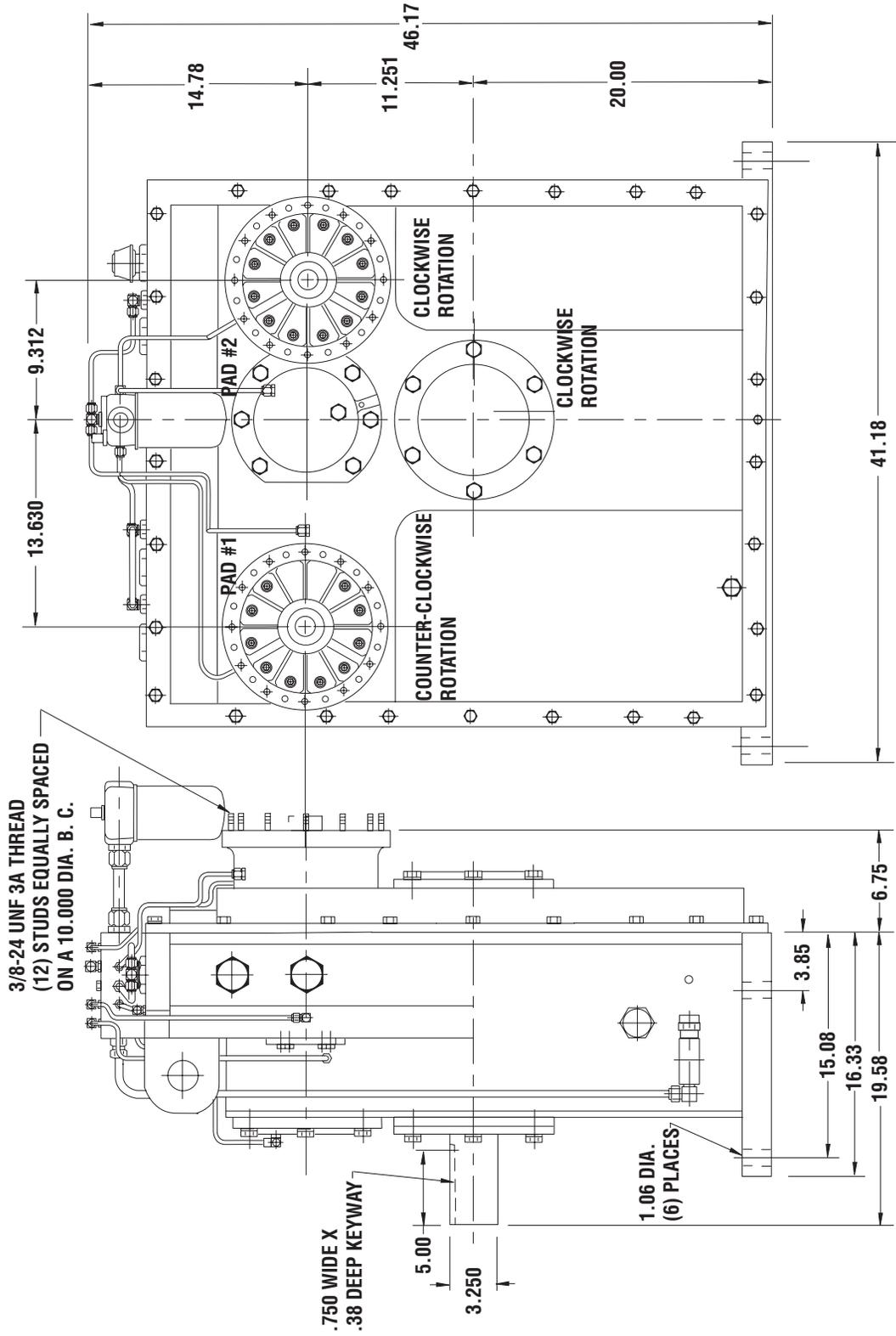
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<b>CAPACITY:</b>	<u>300HP</u> at 0 to 1900 RPM input High speed pad continuous rating <u>120 HP</u> at 27,000 RPM output Low speed pad continuous rating <u>300 HP</u> at 13,000 RPM output High speed input torque: 270 lbs/ft. maximum Low speed input torque: 340 lbs/ft. maximum
<b>MAXIMUM OUTPUT SPEED:</b>	27,000 RPM at high speed shaft.
<b>RATIOS:</b>	Pad #1 1.0 to 9.96 Pad #2 1/0 to 14.40
<b>OUTPUT PADS:</b>	AND20006
<b>INPUT SHAFT:</b>	3.250" diameter with .750 wide and .38 deep keyway.
<b>DIRECTION OF ROTATION:</b>	Bi-rotational Pad #2 has the same direction as the input. Pad #1 has rotation opposite to input rotation.
<b>MAXIMUM ACCEL/DECEL RATE:</b>	2000 RPM per second at high speed shaft
<b>LUBRICATION REQUIREMENT:</b>	AGMA #1 Separate motor driven lube pump is furnished.
<b>COOLING:</b>	Heat exchanger with modulating water control valve.
<b>ACCESSORIES:</b>	Oil level sight gauge, filter temperature/pressure switch.
<b>OPTIONS:</b>	Output shafts, various AS & AND pads.

9-Jun-06

# MODEL SN2034

HIGH SPEED TRANSMISSION



DO NOT USE DIMENSIONS ON THIS DRAWING FOR INSTALLATIONS. USE CERTIFIED PRINT PROVIDED WITH ORDERS.

**MODEL # SN2032**  
**Style Desc. HIGH SPEED**Product Description

Model SN2032 is a high speed transmission designed for test stand use. It has a single input and output shaft with both on the same horizontal centerline. The gears are helical, carburized, and precision ground. The low speed and intermediate shafts have ball bearings. The high speed shaft has tilting pad journal bearings. The case is heavy fabricated steel that is stress relieved. The sump has two clean out covers.

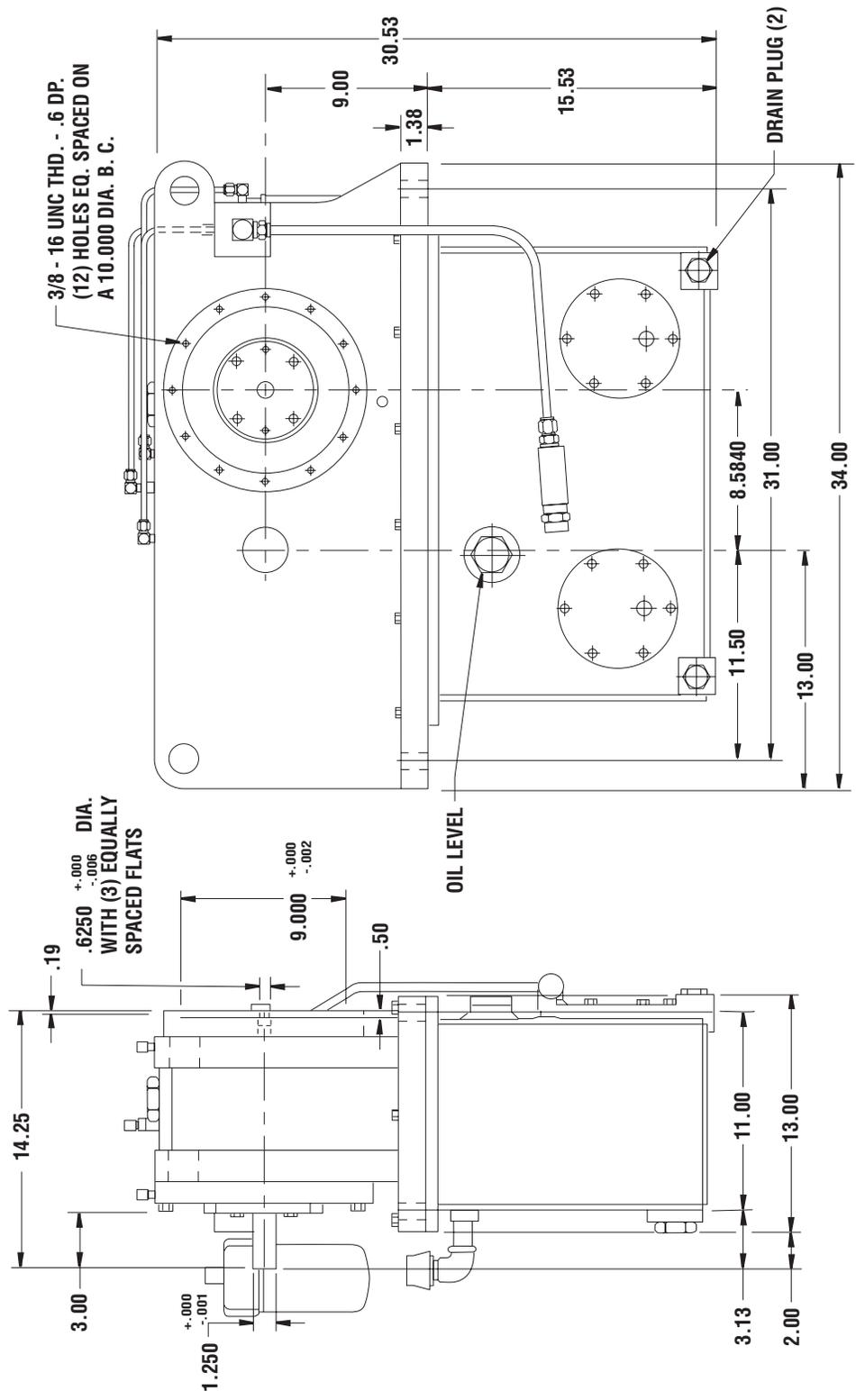
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<b>CAPACITY:</b>	<u>100HP</u> at 64,000 to 80,000 RPM output speeds Output torque not to exceed 140 inch lbs.
<b>MAXIMUM RPM HIGHSPEED SHAFT:</b>	87,000 RPM
<b>RATIO:</b>	1 TO 9.21 over-speed.
<b>OUTPUT PADS:</b>	12 holes 3/8—16 on 10" B.C. concentric with output shaft.
<b>INPUT SHAFT:</b>	1.250 diameter by 3" long with a .250 wide by .125 deep keyway.
<b>OUTPUT SHAFT:</b>	.625 diameter with 3 flats.
<b>DIRECTION OF ROTATION:</b>	Bi-rotational with output rotation in the same direction as input rotation.
<b>MAXIMUM ACCEL/DECEL RATE:</b>	4500 RPM per second (output shaft).
<b>LUBRICATION REQUIREMENT:</b>	AGMA #1 lube. Separate motor driven lube pump, filter and oil level gauge.
<b>COOLING:</b>	Water to oil heat exchanger with modulating water control valve.
<b>ACCESSORIES:</b>	Temperature/pressure switch.
<b>WEIGHT:</b>	1020 lbs.

9-Jun-06

# MODEL SN2032

HIGH SPEED TRANSMISSION



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**MODEL # SN1995**  
**Style Desc. HIGH SPEED**

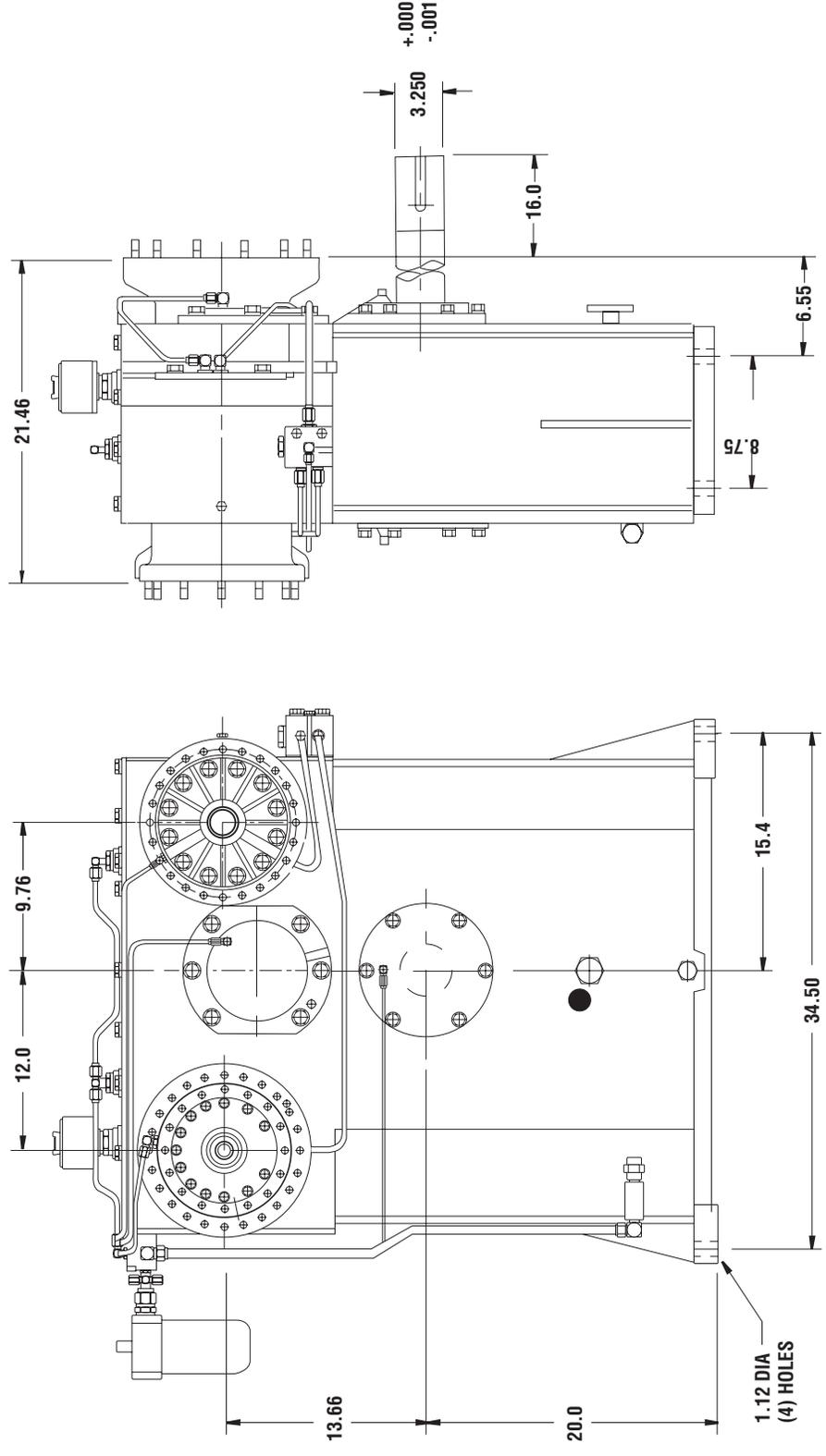
Product Description

Model SN1995 is a foot mounted high speed coaxial transmission designed for testing aircraft components. An output pad for a constant speed drive and for a generator are located on opposite sides of the transmission (co-axial). There are two output pads on the same side, a high speed and a low speed pad. A lock up adapter is furnished for testing generators without CSD's.

<b>CAPACITY:</b>	300HP at 650 to 2400 RPM input 330 HP at same input for 10 minutes per hour 450 HP at same input for 30 seconds per 1/2 hour	
<b>MAXIMUM OUTPUT SPEEDS:</b>	15,600 RPM low speed pad 35,300 RPM high speed pad	
<b>RATIOS:</b>	<u>HIGH SPEED</u>	<u>LOW SPEED</u>
	14.685	6.500
	11.329	5.664
	12.790	6.395
	12.316	6.156
	15.965	6.340
<b>INPUT SHAFT:</b>	3.250" diameter with 3/4 X 3/8 keyway.	
<b>DIRECTION OF ROTATION:</b>	Bi-rotational	
<b>CENTER DISTANCE:</b>	20.67"	
<b>MAXIMUM ACCEL/DECEL RATE:</b>	2000 RPM/second	
<b>LUBRICATION REQUIREMENT:</b>	Sump is in case. Pressure lubricated with spray on gears and bearings. Use AGMA #1 oil.	
<b>COOLING:</b>	Water to oil heat exchanger with modulating water control valve.	
<b>ACCESSORIES:</b>	Temperature/pressure switch. 60 tooth gear for each output for speed pick up.	
<b>FINISH:</b>	Two coats gray polyurethane enamel.	
<b>WEIGHT:</b>	2550 lbs.	

9-Jun-06

**MODEL SN1995**  
HIGH SPEED



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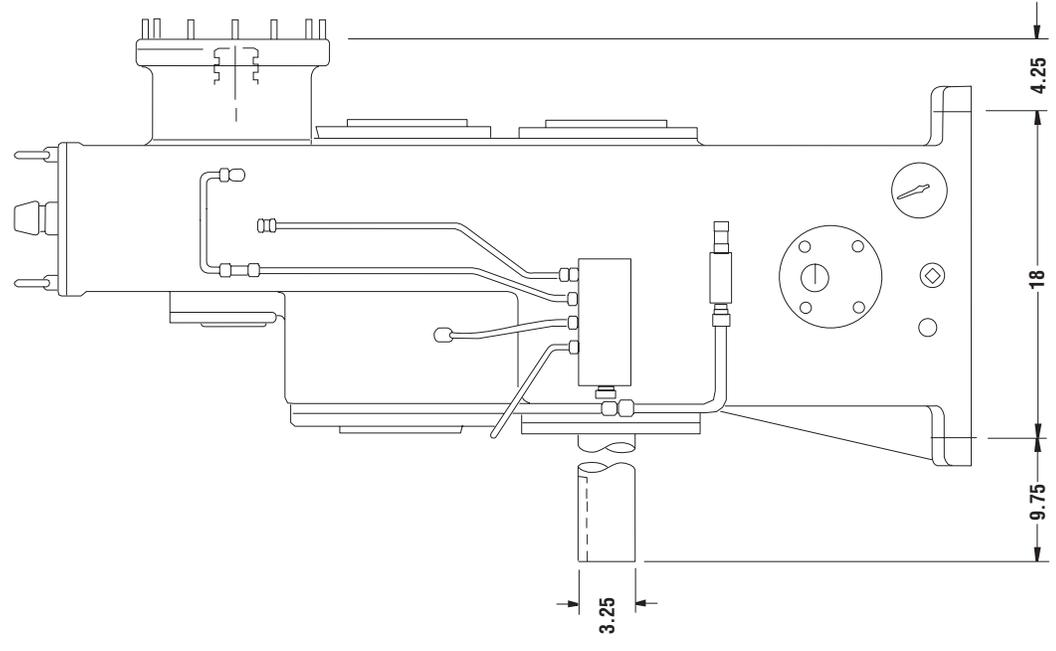
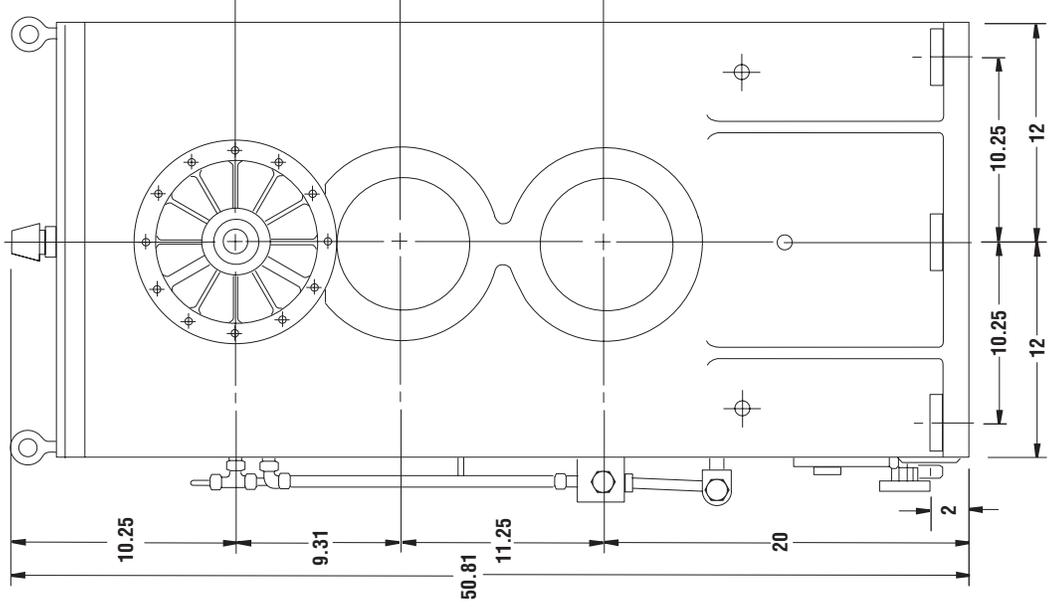
**MODEL SN1903**  
**Style Desc. HIGH SPEED**Product Description

Model SN1939 is a foot mounted high speed dual increasing stage transmission designed for test stand use. The gearbox has a vertical offset. The gears are helical, carburized and precision ground. The bearings are anti-friction. The case is stress relieved, fabricated steel.

<b>CAPACITY:</b>	600HP
<b>MAXIMUM OUTPUT SPEED:</b>	30,000 RPM
<b>RATIO:</b>	Up to 16.55
<b>INPUT SHAFT:</b>	3.250 diameter with 3/4 X 3/8 key-way.
<b>OUTPUT:</b>	AND20006 output pad.
<b>DIRECTION OF ROTATION:</b>	Bi-rotational
<b>ACCEL/DECEL RATE:</b>	2000 RPM/second maximum (Related to output speed).
<b>LUBRICATION REQUIREMENT:</b>	AGMA #1 Oil level sight gauge. Reservoir is in the case.
<b>COOLING:</b>	Water to oil heat exchanger with modulating water control valve.
<b>OPTIONS:</b>	Output shaft, various AND pads, temp/pressure switch
<b>WEIGHT:</b>	Approximately 1600 lbs.

9-Jun-06

**MODEL SN1903**  
HIGH SPEED



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**MODEL # SN1708**  
**Style Desc. HIGH SPEED**Product Description

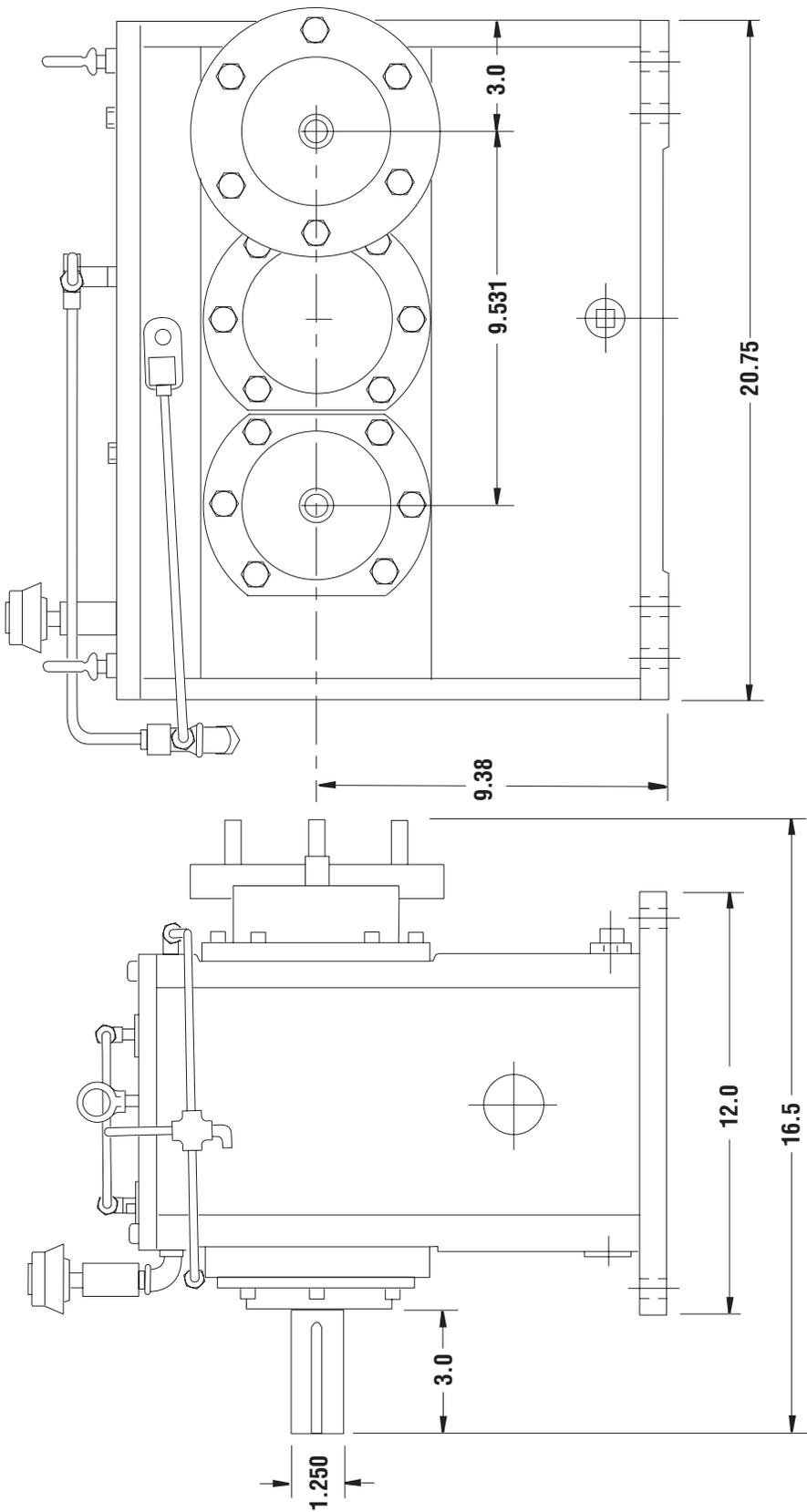
Model SN1708 is a foot mounted high speed transmission designed for test stand use. It has double increasing stages of gears that are helical, carburized and precision ground per AGMA class Q-12. The bearings are anti-friction. The case is stress relieved fabricated steel.

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<b>CAPACITY:</b>	250 HP, nominal
<b>MAXIMUM OUTPUT SPEED:</b>	60,000 RPM
<b>RATIOS:</b>	8.43, 8.94, 9.18, 15.225 (max.) (Contact Cotta for other available ratios)
<b>OUTPUT:</b>	AND20006
<b>INPUT SHAFT:</b>	1.250" diameter with .250W X 3.125 deep keyway.
<b>DIRECTION OF ROTATION:</b>	Output rotation is the same as input rotation.
<b>MAXIMUM ACCEL/DECEL RATE:</b>	2000 RPM/second at output shaft.
<b>LUBRICATION REQUIREMENT:</b>	AGMA Grade 1, ISO viscosity grade 68. Separate lube system is required for output speeds over 40,000 RPM.
<b>COOLING:</b>	Water to oil heat exchanger with modulating water control valve.
<b>ACCESSORIES:</b>	Temperature/Pressure switch.
<b>OPTIONS:</b>	Stub output shaft AND20002 output pad AND10262 output pad
<b>WEIGHT:</b>	1650 lbs.

9-Jun-06

**MODEL SN1708**  
HIGH SPEED



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INSTALLATIONS. USE CERTIFIED PRINT PROVIDED  
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**MODEL # SN1678**  
**Style Desc. HIGH SPEED**

Product Description

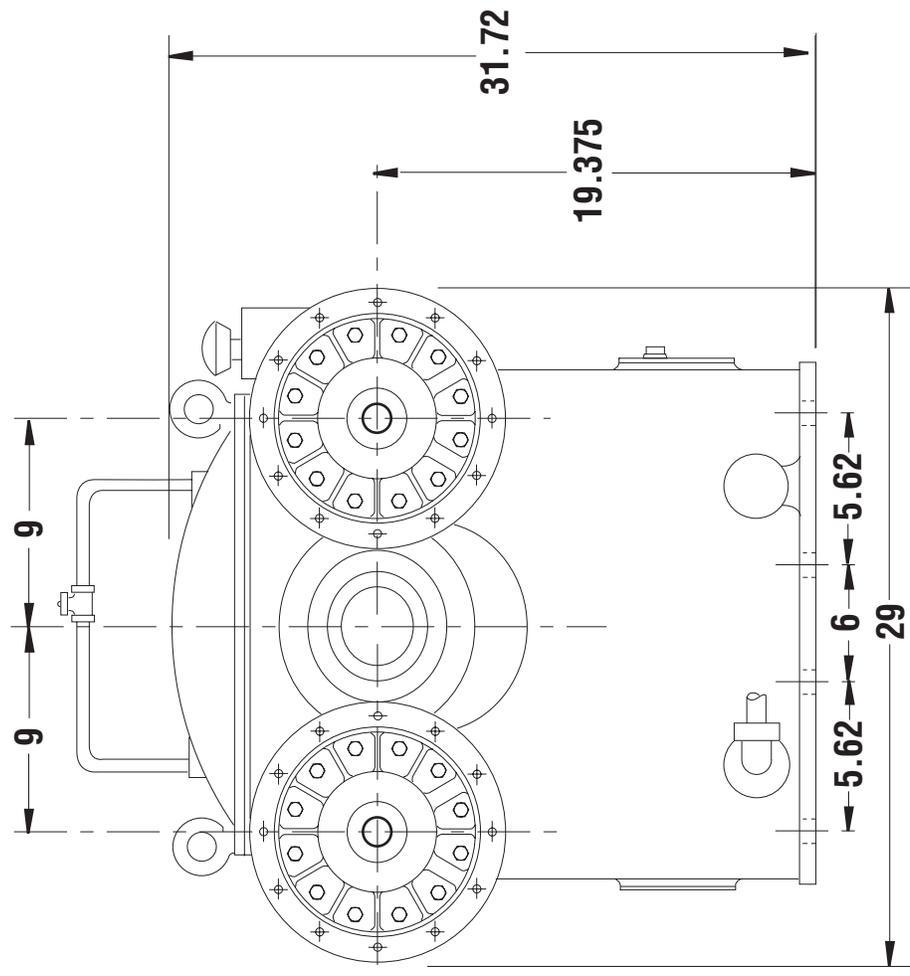
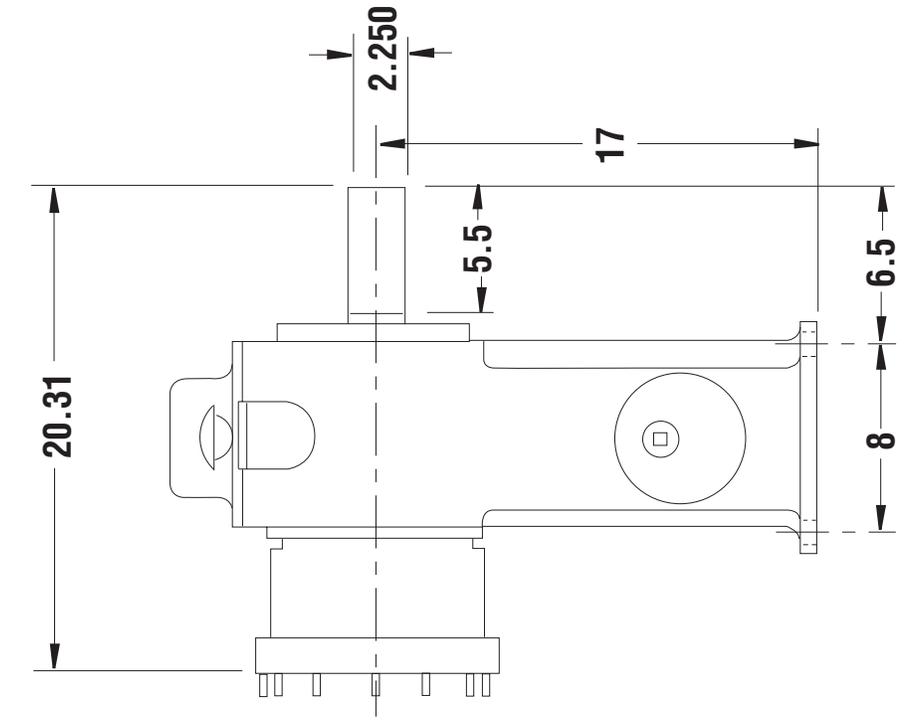
Model SN1678 is a foot mounted high speed gearbox that is designed for test stand use. This model has a stub input shaft and two output pads. Both output pads have the same direction of rotation and the same ratio. There is a single train of gears that are helical, carburized and precision ground per AGMA Q-12. The bearings are anti-friction. The case is stress relieved fabricated steel. A special design provides for different ratios on each pad.

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<b>MAXIMUM HORSEPOWER:</b>	600HP
<b>MAXIMUM OUTPUT SPEED:</b>	35,000 RPM
<b>RATIO:</b>	1.0 TO 6.667
<b>INPUT SHAFT:</b>	2.875 diameter with a .75 wide X .375 deep keyway.
<b>OUTPUT PAD:</b>	1.375 diameter with a .312 wide X .156 deep keyway.
<b>DIRECTION OF ROTATION:</b>	Bi-rotational.
<b>LUBRICATION REQUIREMENT:</b>	AGMA #1
<b>ACCESSORIES:</b>	60 tooth speed pick up.
<b>OPTIONS:</b>	Output pad, dual ratios.

9-Jun-06

**MODEL SN1678**  
HIGH SPEED



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**MODEL # SN1659**  
**Style Desc. FLEX DRIVE**Product Description

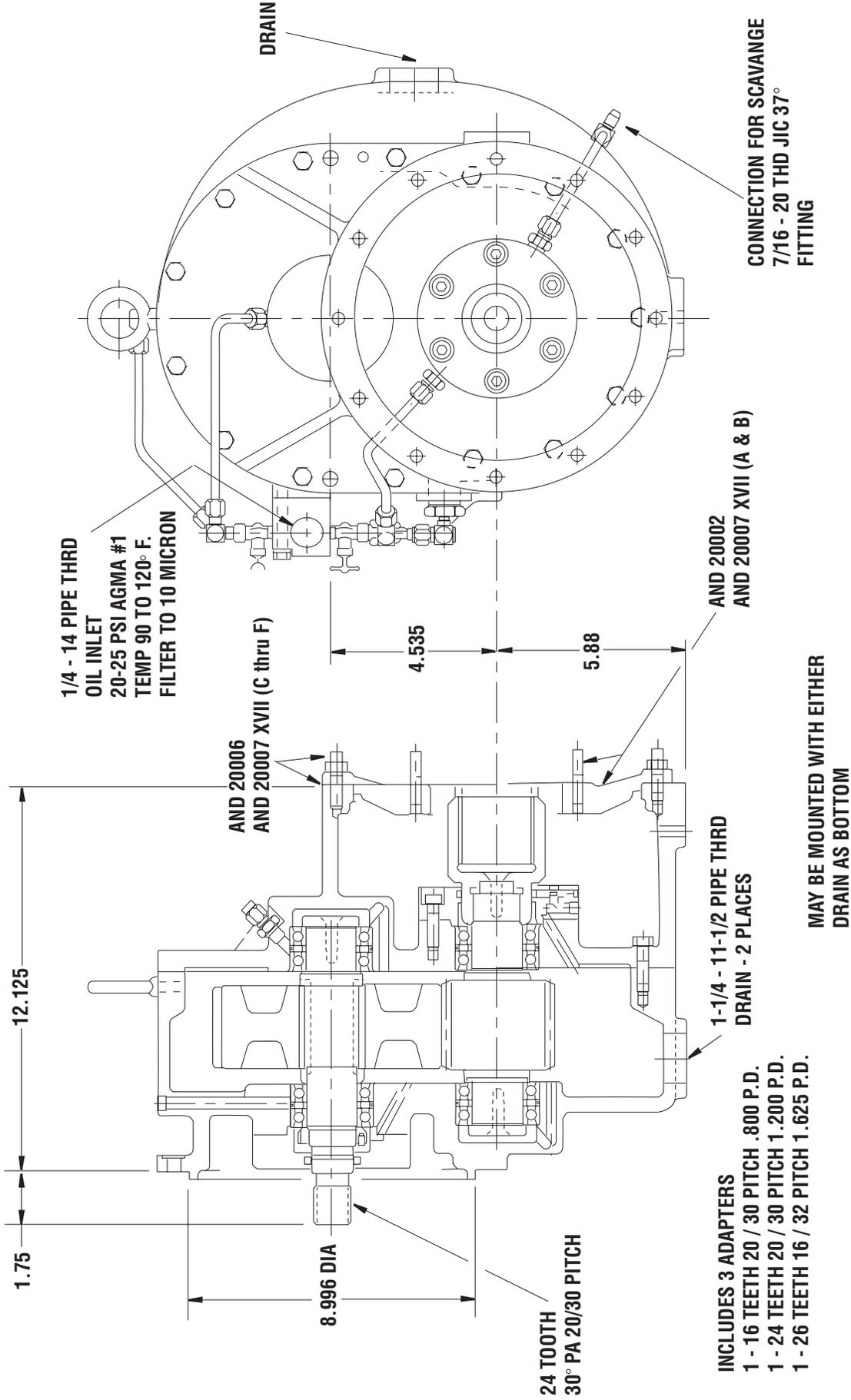
Model SN1659 is an add-on type high speed transmission that allows output speed of an existing gearbox to be multiplied.

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<b>CAPACITY:</b>	800 HP
<b>MAXIMUM OUTPUT SPEED:</b>	30,000
<b>OVERSPEED RATIOS:</b>	UP TO 1:3.14
<b>INPUT PAD:</b>	Will fit AND20006 XVI (A thru D) .
<b>OUTPUT PAD: (Includes adapters):</b>	AND20006, AND20002, AND20007 (Except for O ring counterbore in spline shaft on AND20007).
<b>LUBE REQUIREMENT:</b>	AGMA #1 or AGMA #2 lube. Requires scavenge for labyrinth seals.
<b>MOUNTING:</b>	2 positions—output at either 6 or 9 o'clock positions in relation to input.
<b>DIRECTION OF ROTATION:</b>	Either direction, output is opposite to input.
<b>WEIGHT:</b>	325 lbs.

# MODEL SN1659

FLEX DRIVE



- INCLUDES 3 ADAPTERS**
- 1 - 16 TEETH 20 / 30 PITCH .800 P.D.
  - 1 - 24 TEETH 20 / 30 PITCH 1.200 P.D.
  - 1 - 26 TEETH 16 / 32 PITCH 1.625 P.D.

DO NOT USE DIMENSIONS ON THIS DRAWING FOR INSTALLATIONS. USE CERTIFIED PRINT PROVIDED WITH ORDERS.

**MODEL # SN1657**  
**Style Desc. HIGH SPEED**Product Description

Model SN1657 is a high speed coaxial transmission designed for test stand use for aircraft constant speed drives and generators. Output pads for the constant speed drives and generators are located on opposite sides of the transmission. Generators and CSD's for the 747, L1011 and the DC10 can be tested. All generators can be tested without the CSD by use of lock up adapters.

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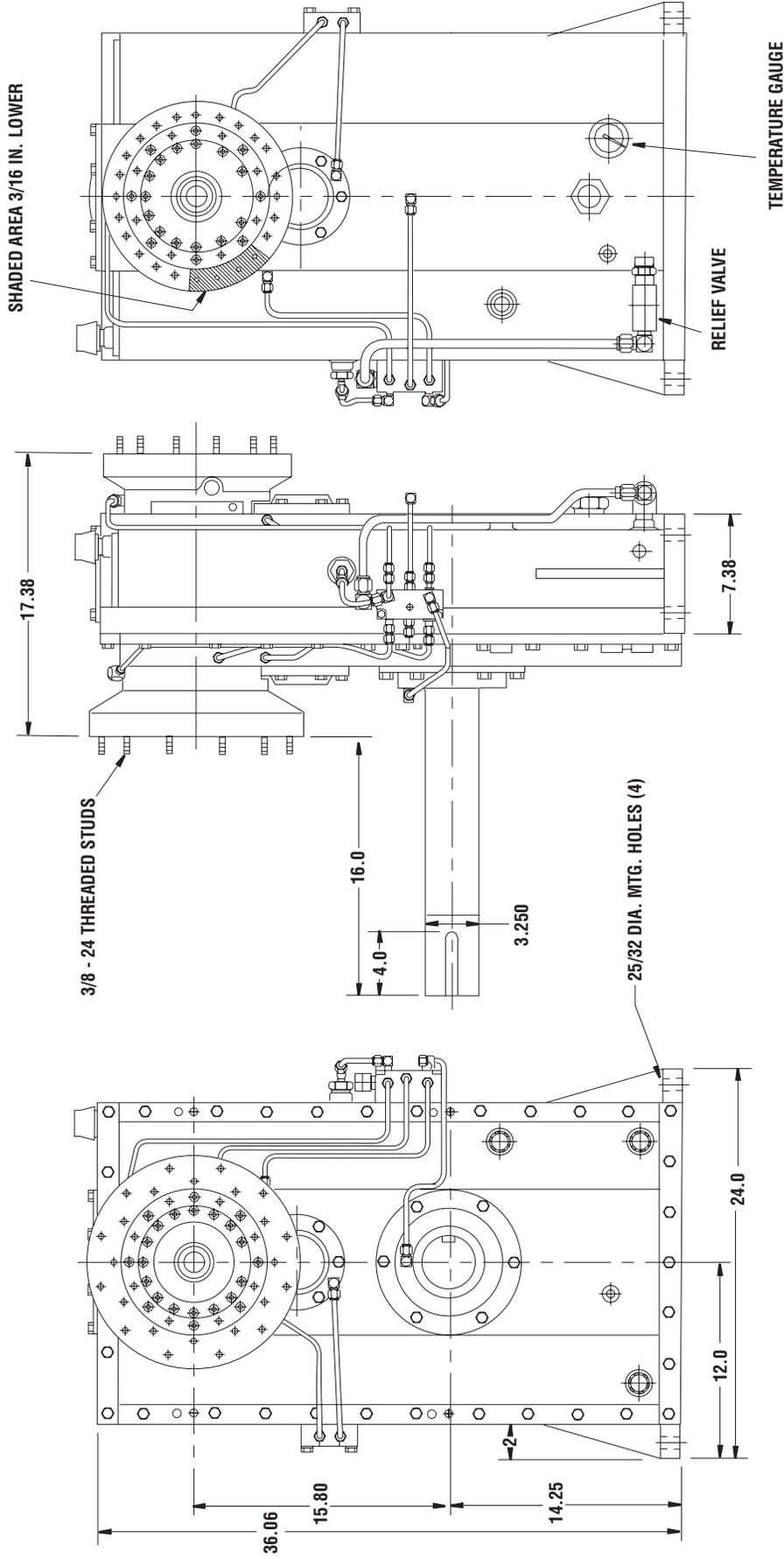
<b>CAPACITY:</b>	450HP at 5000 RPM output
<b>OVERLOAD CAPABILITY:</b>	200% over entire range for short duration.
<b>MAXIMUM RPM HIGH SPEED SHAFT:</b>	15,000 RPM
<b>RATIO, OVERSPEED:</b>	5.208, 5.655, 5.909, 6.084, 6.416, 7.768, 7.82
<b>INPUT SHAFT:</b>	3.250" diameter with 3/4 x 3/8 keyway.
<b>DIRECTION OF ROTATION:</b>	Either direction. Output rotation is the same as input rotation.
<b>LUBRICATION:</b>	Pressure lubricated. Oil sump is in transmission case.
<b>COOLING:</b>	Water to oil heat exchanger.
<b>ACCESSORIES:</b>	Temperature/pressure switch. Switch activates when oil temperature exceeds safe limit or when pressure drops below minimum.
<b>WEIGHT:</b>	Approx. 1100 lbs.

9-Jun-06

# MODEL SN1657

HIGH SPEED

FLANGE ADAPTERS AND SPLINED ADAPTERS  
AVAILABLE TO FIT VARIOUS GENERATORS AND CSD'S.



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**MODEL # SN1649**  
**Style Desc. HIGH SPEED**Product Description

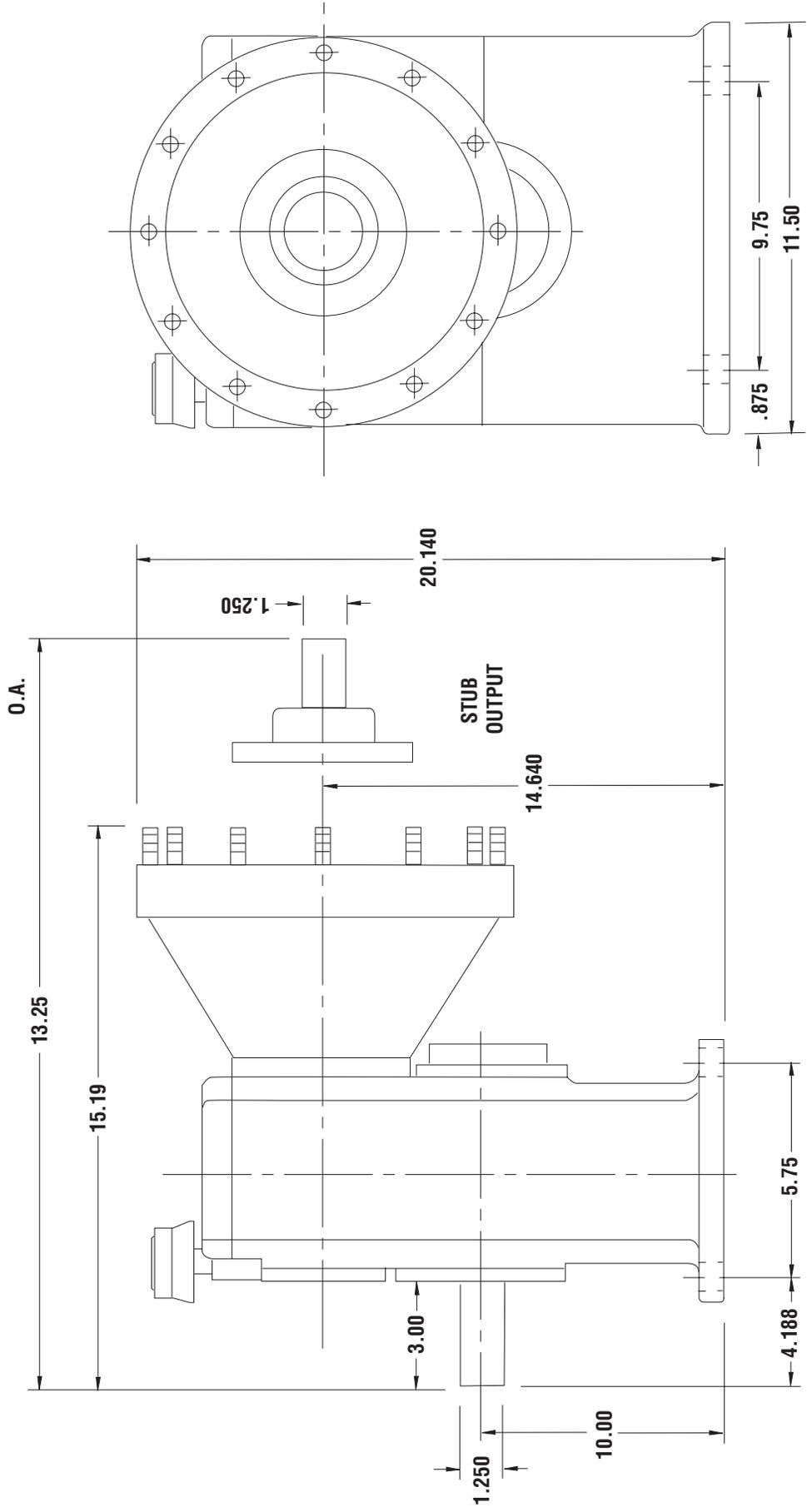
Model SN1649 is a foot mounted high speed gearbox designed for test stand use. This model has a stub input shaft and an output pad. The gears are helical, carburized and precision ground. The bearings are anti-friction. The case is stress relieved fabricated steel.

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<b>CAPACITY:</b>	200 HP (Input) nominal
<b>MAXIMUM OUTPUT SPEED:</b>	50,000 RPM
<b>RATIOS:</b>	2.00, 2.58, 3.00, 4.00, 5.44
<b>INPUT SHAFT:</b>	1.250" diameter x 3" long with keyway.
<b>OUTPUT:</b>	AND20006 Type XVI pad.
<b>OUTPUT ADAPTERS:</b>	1—16 teeth 20/30P .800 P.D. 1—24 teeth 20/30P 1.20 P.D. 1—26 teeth 16/32P 1.625 P.D.
<b>DIRECTION OF ROTATION:</b>	Bi-rotational—output opposite to input.
<b>ACCEL/DECEL RATE:</b>	Max. 2000 RPM/second at output shaft
<b>LUBRICATION:</b>	AGMA Grade 1. Oil sump is in case.
<b>COOLING:</b>	Water to oil heat exchanger with modulat-
<b>ACCESSORIES:</b>	Temperature/pressure switch.
<b>OPTIONS:</b>	Stub output shaft, 1.250" diameter with k.w. 60 tooth gear for customers speed pick up. AND20002 output pad.
<b>WEIGHT:</b>	615 lbs.

9-Jun-06

**MODEL SN1649**  
HIGH SPEED



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**MODEL # SN1624**  
**Style Desc. HIGH SPEED**Product Description

Model SN1624 is a foot mounted high speed gearbox designed for test stand use. This model has a stub input shaft and an output pad. The gears are helical, carburized and precision ground. The bearings are anti-friction. The case is stress relieved fabricated steel.

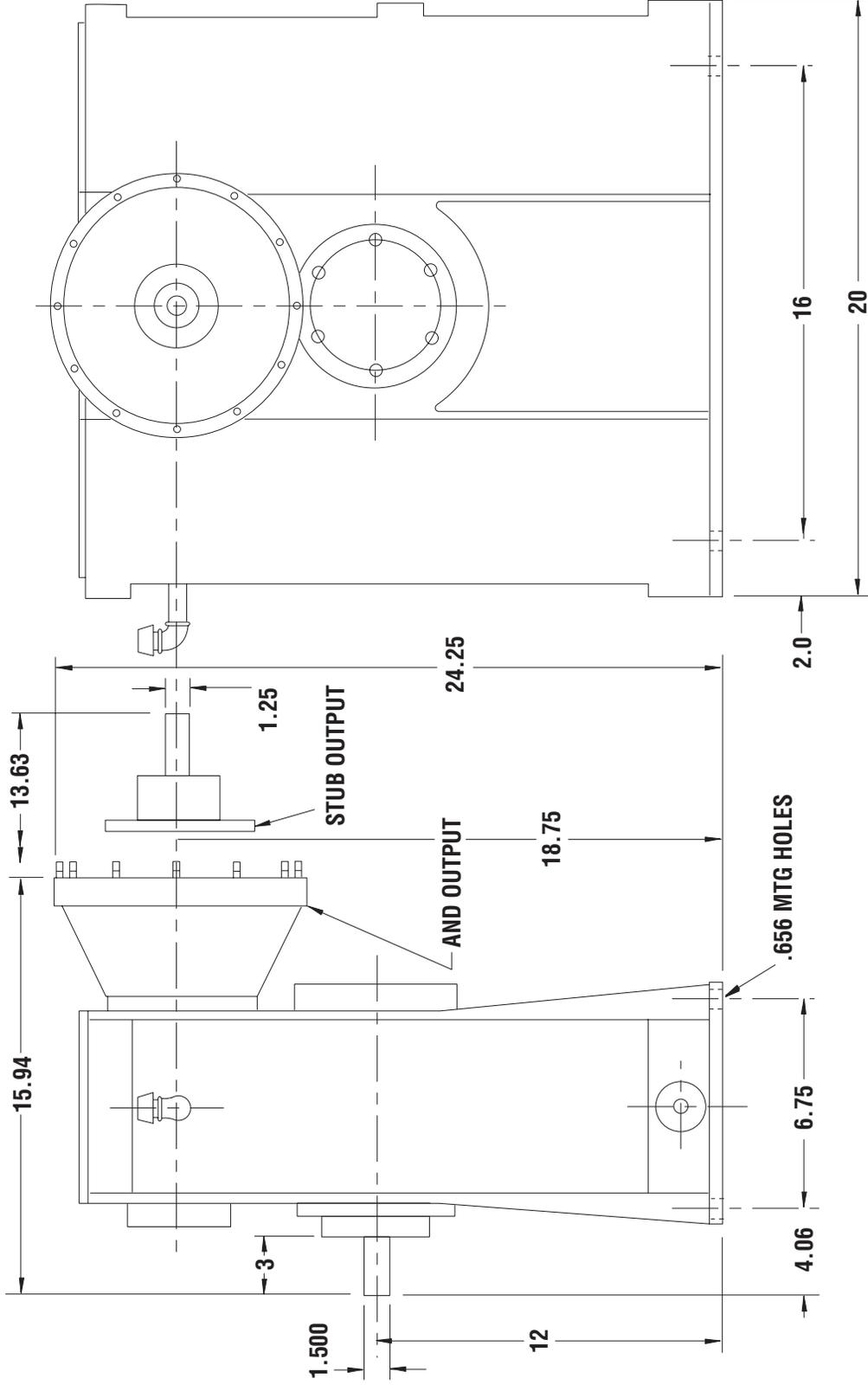
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<b>CAPACITY:</b>	300 HP
<b>MAXIMUM OUTPUT SPEED:</b>	50,000 RPM
<b>RATIOS:</b>	5.143, 5.40, 5.957, 7.00 (Contact Cotta for other available ratios)
<b>INPUT SHAFT:</b>	1.500" diameter X 3" long with keyway.
<b>OUTPUT:</b>	AND20006 Type XVI pad.
<b>DIRECTION OF ROTATION:</b>	Bi-rotational—output opposite to input.
<b>LUBRICATION:</b>	AGMA Grade 1. Separate lube tank assembly is required for output speeds over 30,000 RPM. Oil sump is case.
<b>COOLING:</b>	Water to oil heat exchanger with modulating water control valve.
<b>ACCESSORIES:</b>	Temperature/pressure switch.
<b>OPTIONS:</b>	Stub output shaft, 1.250" diameter with keyway 60 tooth gear for customers speed pick-up.
<b>APPROX. WEIGHT:</b>	615 lbs.

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# MODEL SN1624

HIGH SPEED



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**MODEL # SN1572**  
**Style Desc. FLEX DRIVE**

Product Description

Model SN1572 is an add-on type high speed transmission that allows output speed of existing gearboxes to be multiplied.

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<b>CAPACITY:</b>	400 HP
<b>MAXIMUM OUTPUT SPEED:</b>	30,000 RPM
<b>OVERSPEED RATIOS:</b>	1.267, 2.000, up to 1:2
<b>INPUT PAD:</b>	Will fit AND 20006 XVI (A through D)
<b>OUTPUT PAD (Includes adapters):</b>	AND20006, AND20002, AND20007 (Except for O-ring counterbore in spline shaft on AND20007).
<b>LUBE REQUIREMENT:</b>	AGMA #1 or AGMA #2 lube. (Requires oil scavange line for labyrinth seals 2 GPM minimum)
<b>DIRECTION OF ROTATION:</b>	Either direction, output is opposite to input.
<b>WEIGHT:</b>	150 lbs.

9-Jun-06



### MODEL # HS0305

Style Desc. HIGH SPEED

#### Product Description

Model HS0305 is a high speed right angle gearbox that is designed to fit to an existing test stand for attitude testing. The output pad can be rotated in 7 degree 30 minute increments about the input centerline. It has an overspeed ratio and a high accel/decel rate. The gears are spiral bevel and are precision ground. The output bearings are tilting pad journal type. The case is stress relieved fabricated steel.

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<b>CAPACITY:</b>	300 HP @ 17,500 to 30,000 RPM constant torque below 17,500 RPM.
<b>MAXIMUM OUTPUT SPEED:</b>	30,000 RPM
<b>RATIO:</b>	1.0 to 2.0
<b>OUTPUT PAD:</b>	AND20007 with the exception that there are 48 holes in place of 12 studs.
<b>INPUT PAD:</b>	AND10267 type XVII with the exception that there are 48 holes in place of 12 holes.
<b>DIRECTION OF ROTATION:</b>	Bi-rotational
<b>ACCEL/DECEL RATE:</b>	7500 RPM/Sec. Max.
<b>PITCH RANGE:</b>	The gearbox will operate 112.5 degrees above the horizontal. There are 4 scavenge ports for multiple pitch operation.
<b>LUBRICATION:</b>	Uses MIL-C-23699. A separate lube system is supplied. Tank is 14.5 X 16.5 X 18.5" in size.
<b>WEIGHT:</b>	750 lbs. Including the lube system.

9-Jun-06



**MODEL # T17-7**  
**Style Desc. LUBE SYSTEM**Product Description

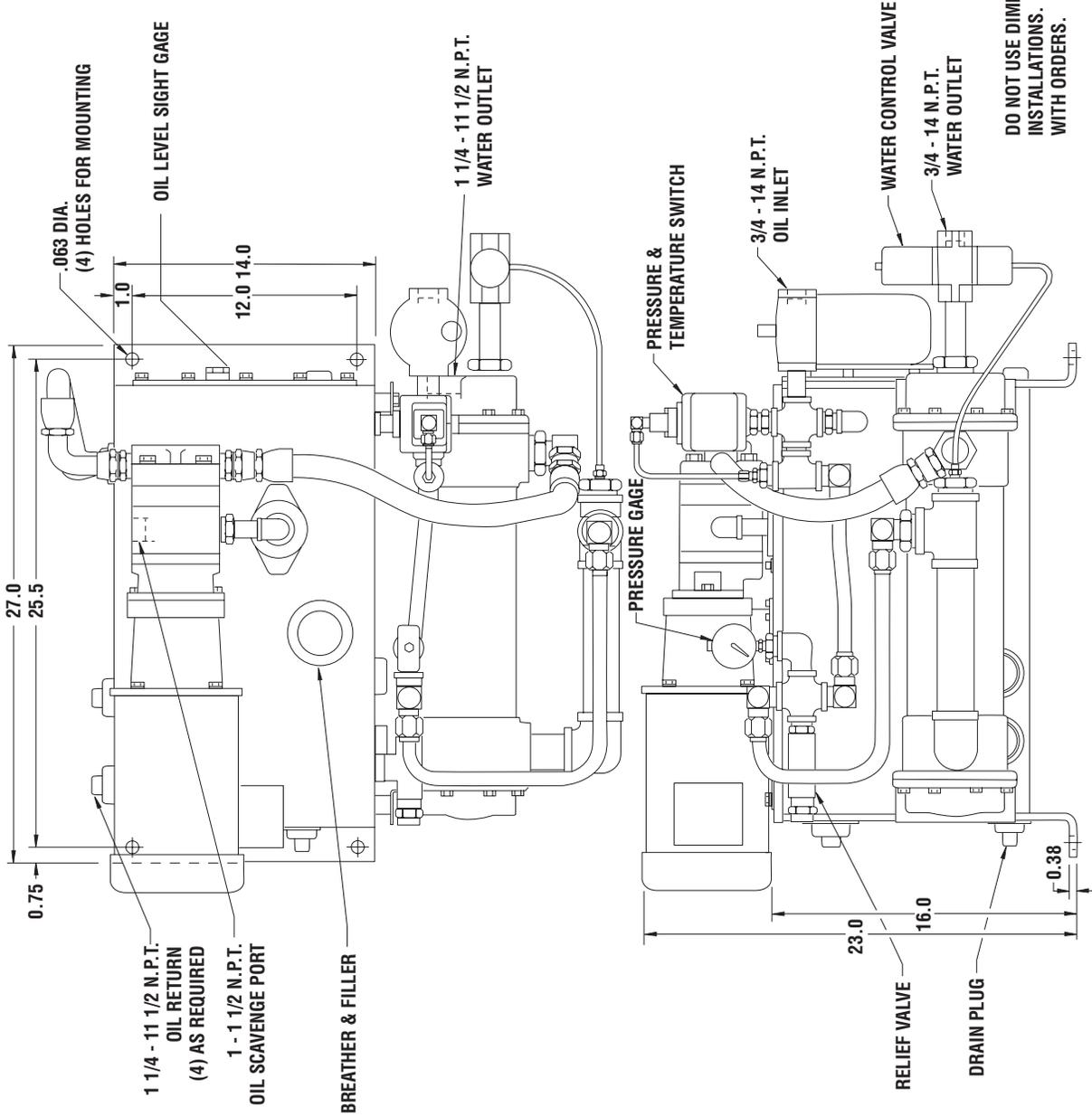
The T17-7 High Speed system is a remote pressure lubrication system for supplying filtered oil to a transmission. It is furnished with an oil scavenge section for labyrinth type seals. This is a completely assembled system, having safeguards to protect the transmission from pressure failure or temperature fluctuations.

<b>TANK:</b>	14 gallon capacity foot mounted—12" X 14" X 22" with baffles and removable end for cleaning purposes.
<b>MOTOR:</b>	60 cycle, 230/460 volt. 1 HP with 1725 RPM 50 cycle, 190/380 volt 3/4 HP with 1425 RPM
<b>CIRCULATION PUMP:</b>	10 GPM
<b>SCAVANGE PUMP:</b>	5 GPM
<b>HEAT EXCHANGER:</b>	Oil to water tube type, 2 pass.
<b>OIL FILTER:</b>	10 micron with by-pass and filter condition gauge.
<b>TEMPERATURE PRESSURE SWITCH:</b>	High temperature and low pressure switches.
<b>TEMPERATURE ACTUATED MODULATING WATER CONTROL VALVE:</b>	Lube temperature probe in sump tank with lead to water control valve to control flow of water through heat exchanger.
<b>OIL LEVEL GAUGE:</b>	Glass tube type
<b>INLET PORTS:</b>	(8) 1-1/4" pipe tap holes provided for ease of plumbing.
<b>DRAIN PLUGS:</b>	Magnetic
<b>OIL FILLER:</b>	Screened—strainer type.
<b>PRESSURE GAUGE:</b>	0 to 60 PSI.
<b>PRESSURE RELIEF VALVE:</b>	20 to 25 PSI
<b>WEIGHT:</b>	385 lbs.

9-Jun-06

# MODEL T17-7

LUBE SYSTEM



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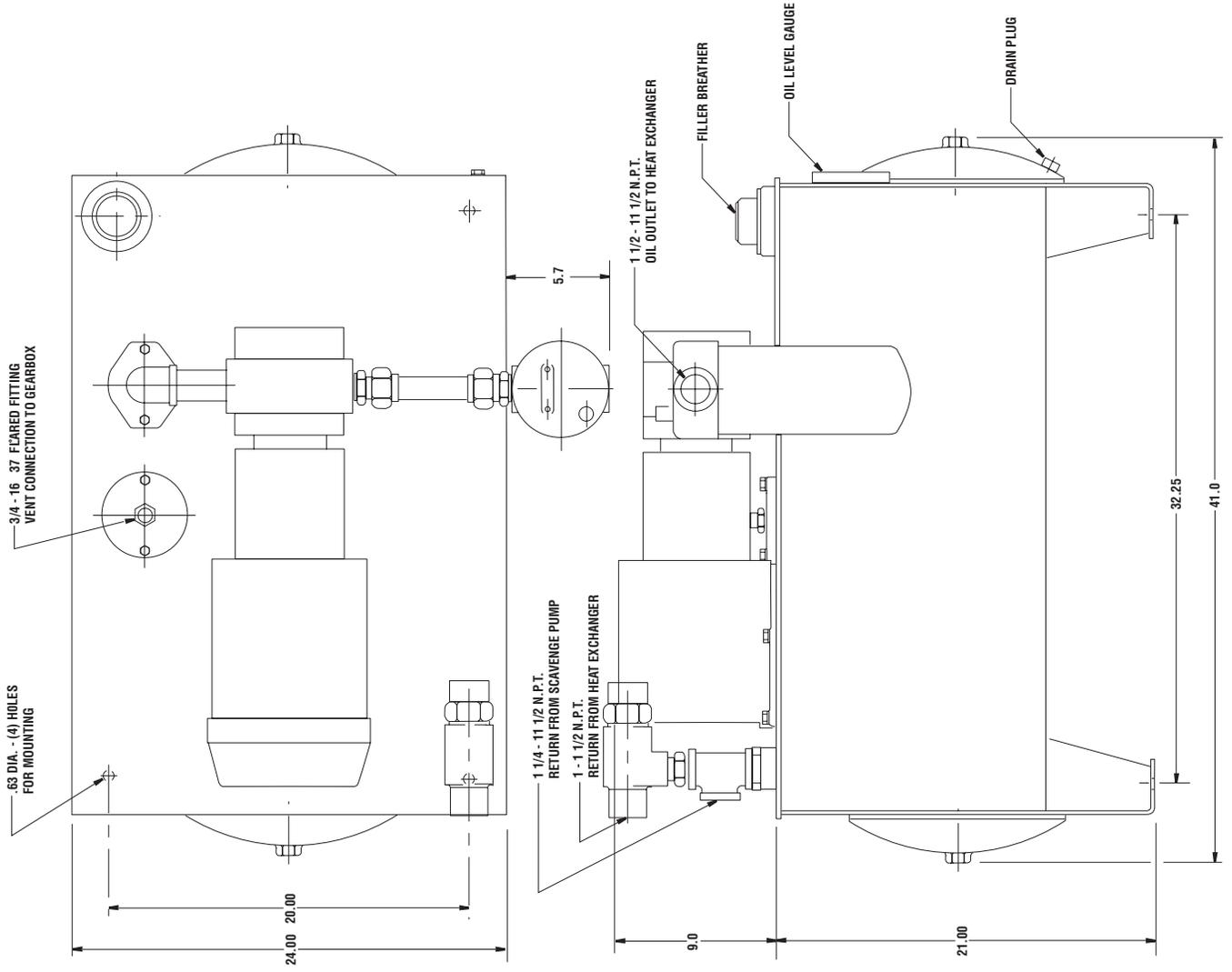
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**MODEL # T-40**  
**Style Desc. Lube System**

The T-40 lube system is a separate pressure lubrication system supplying filtered oil to a transmission. It is supplied with safeguards to protect the transmission from low oil pressure or high temperature

<b>Capacity:</b>	40 GPM tank.
<b>Motor:</b>	3 HP, totally enclosed fan, 220/440/360V
<b>Heat exchanger:</b>	Oil/water
<b>Temperature control:</b>	Modulated control valve to control wa- ter flow
<b>Temperature/pressure switch:</b>	Temperature and pressure sensing switch to interface with customer con- trols.
<b>Level indicator:</b>	Glass sight gage
<b>Filter</b>	10 Micron bypass type

# MODEL T40 LUBE SYSTEM



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WITH ORDERS.

**MODEL # SN2105**  
**Style Desc. High Speed**

SN2105 is a high speed transmission designed for test stand use. It is a single input, single output, parallel shaft design with a single increasing stage of gearing. The case is cast iron with integral mounting feet. The transmission is dry sump and requires an external oil source.

<b>Capacity:</b>	200 HP nominal
<b>Standard input speed:</b>	4500 rpm. Higher by special design
<b>Standard output speed:</b>	12,000 rpm. Up to 20,000 rpm by special design
<b>Center distance:</b>	6.0 inches
<b>Rotation:</b>	Output is anti input. Input rotation can be cw or ccw
<b>Lubrication:</b>	Dry sump. Requires separate lube supply. AGMA#1 and several MIL-L options
<b>Ratio:</b>	Up to 1:5.5
<b>Gears:</b>	Precision ground helical
<b>Input options:</b>	Keyed or splined shaft. Other custom configurations
<b>Output options:</b>	Various shafts, AND and AS pads, customer specified.
<b>Mounting:</b>	Integral mounting feet.
<b>Size and weight :</b>	19H x 18W x 15L. Approximately 150 lbs.

9-Jun-06

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# SN2105

SPEED PICKUP (OPTIONAL)  
OUTPUT PAD PER AND20002 (OPTIONAL)

