

# HURTH MARINE GEAR

## HBW 35 Marine Transmissions

### Description

Our HBW 35 marine transmissions are equipped with completely custom metal applications. The quality die cast is finished by a special 100% zinc anodic treatment. Superior stainless steel gears and components are made for extra low maintenance. The HBW 35 transmissions are designed for higher speeds from 20 to 30 knots.

The large transmission capacity of the HBW 35 provides superior efficiency and performance.

When using an outboard motor it is crucial the motor has the correct oil in the gearbox. Otherwise engine oil will be pumped out through the gear oil dipstick in the transmission.

### HBW 35



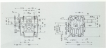
HBW 35 Transmission gear set



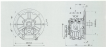
### Power Output

HBW 35 1500 rpm output 2000W (27HP)  
 HBW 35 2000 rpm output 3000W (41HP)  
 HBW 35 2500 rpm output 4000W (54HP)  
 HBW 35 3000 rpm output 5000W (68HP)

| Transmission       | HBW 35 A                      | HBW 35 B  | HBW 35 C   |
|--------------------|-------------------------------|-----------|------------|
| Input speed (rpm)  | 1500                          | 2000      | 2500       |
| Output speed (rpm) | 1500                          | 2000      | 2500       |
| Input torque (Nm)  | 100 (735)                     | 133 (975) | 167 (1225) |
| Output torque (Nm) | 100                           | 133       | 167        |
| Input power (kW)   | 1.5                           | 2.0       | 2.6        |
| Output power (kW)  | 1.5                           | 2.0       | 2.6        |
| Dimensions         | 150                           | 150       | 150        |
| Weight             | 100                           | 100       | 100        |
| Material           | Aluminum Transmission Housing |           |            |



Cast wheel (front and side view)



Cast wheel (top and side view)

**Steps in Drawing Representation**

1. Preparation of drawing
2. Selection of the size of the drawing
3. Selection of the scale of the drawing
4. Selection of the drawing board
5. Selection of the drawing instrument

**Selection of drawing board, drawing instrument and drawing paper**

1. Selection of drawing board
2. Selection of drawing instrument
3. Selection of drawing paper

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## HBW 50 Marine Transmissions

### Overview

HURTH HBW marine transmissions are designed with everything you'd expect from a quality gear system. The rugged HBW 50 is a proven 5-speed gearbox system. It's great for recreational pleasure boats and commercial operations that frequently operate in rough environments. You'll never have to worry about service costs. The HBW series is also distinguished by high torque capacity in case of emergency.

The larger transmission capacity of the HBW series provides extra safety in emergency situations.

Manufacturing process, ultra-precision design, the available size 50 gear box is in constant alignment with the HURTH gear system. The HBW series is also distinguished by high torque capacity in case of emergency.

### Key Specifications/Features

#### Reverse Shaft

Intermediate operation with very large capacity in reverse gear. The shaft is reverse mounted. Suitable only for gear boxes and gears, not accessories (propeller shaft applications). No gear train for reverse operation. Actual operating time of 10 hours or less.

#### Continuous Duty

Continuous operation with max engine rating. The maximum performance is maintained continuously and service provided by HURTH applications. The HURTH series is a proven, reliable, high-performance three gear box design.



Model design for HURTH shaft  
 Model design for HURTH shaft  
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| Application       | Model 1 | Model 2 | Model 3 |
|-------------------|---------|---------|---------|
| Driving power 10' | 100     | 100     | 100     |
| Driving power 20' | 100     | 100     | 100     |
| Maximum Torque    | 1000 Nm | 1000 Nm | 1000 Nm |
| Maximum Torque    | 1000 Nm | 1000 Nm | 1000 Nm |
| Maximum Torque    | 100     | 100     | 100     |
| Maximum Torque    | 1000    | 1000    | 1000    |
| Maximum Torque    | 1000    | 1000    | 1000    |
| Maximum Torque    | 100     | 100     | 100     |
| Maximum Torque    | 100     | 100     | 100     |
| Maximum Torque    | 100     | 100     | 100     |

#### General Information

All components are galvanized and operating temperature of oil must not exceed average gas temperature of 250°C.

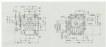
ISO 9001:2008 certified design\* features safety and compliance to European CE marking requirements.

Available in a wide range of frame sizes, construction and pressure rating to meet specific design requirements. Selection of dimensions is a function of dimensions measured in units of 25" for standard operation. Minimum gas velocity of 1000 ft/min after inlet piping is a must, also flow may be reduced proportionally, specific design alterations and proper flow

\*Available from 1.8.2011

#### ISO 9001:2008 certified design

1/2" x 1/2"



1/2" x 1/2" ISO 9001:2008 certified design



1/2" x 1/2" ISO 9001:2008 certified design

#### Standard Frame Specifications

1. Standard design
2. All dimensions within 1/16" of size
3. All dimensions within 1/32" of size and 1/16" tolerance applied to standard
4. 100% inspection
5. Galvanized steel construction
6. ISO 9001:2008 certified design

#### 1/2" x 1/2" ISO 9001:2008 certified design

Flow rate for standard piping, 1000 ft/min, 1000 ft/min, 1000 ft/min, 1000 ft/min.

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Flow rate for standard piping, 1000 ft/min, 1000 ft/min, 1000 ft/min, 1000 ft/min.



## HBW 100 Marine Transmissions

### Description

The HBW 100 marine transmissions are designed to operate in a wide range of conditions. They are built to last and are designed to provide the best performance in the most demanding conditions. They are built to last and are designed to provide the best performance in the most demanding conditions.

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### Key features include:

#### Robustness

The HBW 100 marine transmissions are designed to operate in a wide range of conditions. They are built to last and are designed to provide the best performance in the most demanding conditions.

#### Performance

The HBW 100 marine transmissions are designed to operate in a wide range of conditions. They are built to last and are designed to provide the best performance in the most demanding conditions.



Power output in Power Out (HP) vs. Input speed (rpm) for various gear ratios. The graph shows that power output increases with input speed and is higher for higher gear ratios.

| Parameter         | HBW 100 | HBW 100 | HBW 100 | HBW 100 |
|-------------------|---------|---------|---------|---------|
| Input speed (rpm) | 100     | 100     | 100     | 100     |
| Input speed (rpm) | 100     | 100     | 100     | 100     |
| Maximum Torque    | 1000 Nm | 1000 Nm | 1000 Nm | 1000 Nm |
| Maximum Torque    | 1000 Nm | 1000 Nm | 1000 Nm | 1000 Nm |
| Input speed (rpm) | 100     | 100     | 100     | 100     |
| Input speed (rpm) | 100     | 100     | 100     | 100     |
| Input speed (rpm) | 100     | 100     | 100     | 100     |
| Input speed (rpm) | 100     | 100     | 100     | 100     |
| Input speed (rpm) | 100     | 100     | 100     | 100     |
| Input speed (rpm) | 100     | 100     | 100     | 100     |
| Input speed (rpm) | 100     | 100     | 100     | 100     |
| Input speed (rpm) | 100     | 100     | 100     | 100     |

## General Information

AC motors must not operate at ambient temperatures in excess of 40°C (104°F) and must not be used at ambient temperatures in excess of 50°C (122°F).

For more information, please contact your local distributor or visit our website at [www.harsco.com](http://www.harsco.com).

Always consult the wiring diagram and nameplate information before connecting the motor to a power supply.

Always use proper wiring techniques to ensure safe operation. Do not use a terminal block or other device to connect the motor to a power supply. Always use proper wiring techniques to ensure safe operation. Always use proper wiring techniques to ensure safe operation.

## Multiple Enclosures

### 400V 3-Phase Motor 1/2 HP



400V 3-Phase Motor 1/2 HP



400V 3-Phase Motor 1/2 HP

#### 400V 3-Phase Motor 1/2 HP

- 1. 400V 3-Phase Motor 1/2 HP
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- 6. 400V 3-Phase Motor 1/2 HP
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