

# Installation and Operating Instructions for R+W Coupling Housings Model CH For MCM Monocarriers



Please carefully and completely read the following installation procedures for R+W coupling housings. Failure to comply with these procedures may result in poor performance and / or failure.



**Installation of the coupling housing should be performed by a qualified technician**

## Transport

R+W coupling housings are delivered ready for installation. After incoming inspection they should be stored in their original packaging until ready to be used. A copy of this installation manual should be kept with the coupling housing.

## Manufacturer's Declaration

**According to EG guidelines for machinery 2006/42/EG, Appendix IIB**

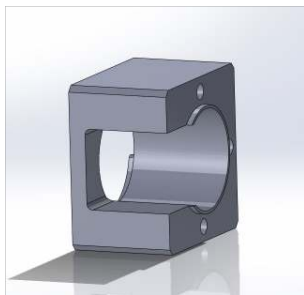
As per machinery guidelines (MR), shaft couplings are not considered machines, but rather components for installation into a machine. Their putting into operation is subject to the fulfillment of all requirements of machinery regulations during or after integration into the final product.

## General Function

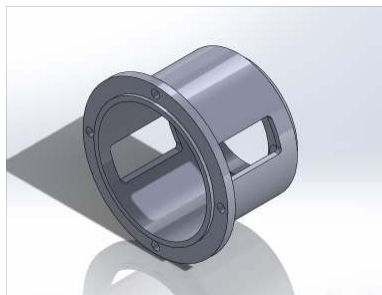
R+W coupling housings are two piece mounting flange systems to connect electric motors and gearboxes to linear actuators, and house R+W precision flexible shaft couplings.

The centering features are designed to aid in the alignment of the respective equipment. A number of sizes are available to suit a variety of applications.

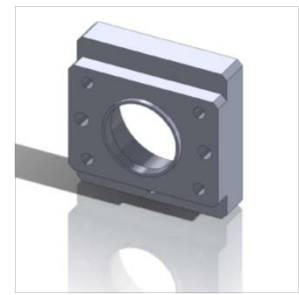
## Standard Designs



motor flange (CHM)



gearbox flange (CHG)



actuator plate (CHA)

## Contents

In most cases a complete set, including CHM or CHG (depending on whether a motor or gearbox will be used to drive the actuator), CHA, and precision shaft coupling, has been delivered, along with all necessary mounting hardware.



**When installing coupling housing systems in conjunction with R+W precision flexible shaft couplings, it is important to follow the accompanying installation instructions, in addition to those which have been included in this document.**

•CHM flanges come packaged with one or more sets of (3) mounting screws for connection to the CHA, (4) mounting screws for connection to the motor, and a small container of thread locking agent.

•CHG flanges come packaged with a set of (4) mounting screws for connection to the CHA, (4) mounting screws for connection to the gearbox, and a small container of thread locking agent.

•CHA plates come packaged with (4) mounting screws for connection to the actuator.



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The information contained in this document is based on our present knowledge and experiences and does not free the user from responsibility for proper use. No legally binding guarantee is provided herein.

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## CHA

Depending on the inside diameter of the CHA, it may be possible to mount the flexible shaft coupling to the actuator prior to mounting the CHA. This is often preferable, as it facilitates open access to the shaft clamping screw of the coupling. In case the coupling has an outside diameter which is larger than the through hole in the CHA, it is necessary to install the CHA first.

1. Seat the CHA against the actuator frame with the screw head counter bores facing outward, ensuring that the centering features have properly engaged, and that the CHA plate sits flat against the actuator frame.
2. Place a few drops of low strength thread locking agent (included with CHM / CHG) onto the threads of each of the (4) screws which have been included with the CHA.
3. Using a torque wrench, install the (4) screws, tightening them in a crosswise pattern to the value specified in the table below, first applying 1/3, then 2/3, then 3/3 of the full installation torque.

## CHM

In case the coupling has not yet been mounted to the shaft of the actuator, it should be mounted at this point, prior to mounting of the CHM flange.

1. Seat the CHM flange against the CHA, with the screw head counter bores facing outward, ensuring that the centering features have properly engaged, and that the CHM sits flat against the CHA.
2. In case your CHM has been packaged with multiple sets of (3) long screws for mounting to the CHA, select the appropriate length(s) for your application, by ensuring that the screws achieve maximum thread engagement into the CHA, without protruding through their respective holes or bottoming out against the actuator frame. It is possible that multiple different lengths will be appropriate for the different holes in the CHA. In situations where more than one set of long screws has been included, there will be screws left over after installation.
3. Place a few drops of low strength thread locking agent (included) onto the threads of each of the (3) screws which will be used.
4. Using a torque wrench, install the (3) screws, tightening them consecutively to the value specified in the table below, first applying 1/3, then 2/3, then 3/3 of the full installation torque.
5. Carefully insert the motor shaft into its respective coupling bore, ensuring that the coupling is not compressed during insertion. Once the motor frame has engaged the centering feature of the CHM, ensure that it sits flat against the flange surface.
6. Using a torque wrench, install the final (4) short screws, through the motor frame and into the CHM, tightening them in a crosswise pattern to the value specified in the table below, first applying 1/3, then 2/3, then 3/3 of the full installation torque.

## CHG

In case the coupling has not yet been mounted to the shaft of the actuator, it should be mounted at this point, prior to mounting of the CHG flange.

1. Seat the CHG flange against the output face of the gearbox, with the screw head counter bores facing outward, ensuring that the centering features have properly engaged, and that the CHG sits flat against the gearbox.
2. Place a few drops of low strength thread locking agent (included) onto the threads of each of one set of (4) screws.
3. Using a torque wrench, install the (4) screws, tightening them in a crosswise pattern to the value specified in the table below, first applying 1/3, then 2/3, then 3/3 of the full installation torque.
4. With the gearbox already mounted to it, seat the CHG flange against the CHA, ensuring that the centering features have properly engaged, and that the flexible coupling is not compressed as the gearbox shaft is inserted into the coupling bore.
5. Place a few drops of low strength thread locking agent (included) onto the threads of each of the (4) screws which will be used.
6. Using a torque wrench, install the (4) screws, tightening them in a crosswise pattern to the value specified in the table below, first applying 1/3, then 2/3, then 3/3 of the full installation torque.

## SCREW TIGHTENING TORQUE VALUES

<b>CHM</b>	17	23		34	40			55	60		70	80	90		100			115	127	143					
<b>CHG</b>							50				70			90											
<b>MCM</b>	02		03			05									08		10								
motor / gearbox screws	M3	M5		M5	M4		M4	M5	M5		M5	M6	M6	M6		M8			M8	M8	M10				
tightening torque (Nm)	2	8		8	4		4	8	8		8	15	15	15		36			36	36	71				
intermediate screws	M3	M5		M4	M3		M4	M5	M5		M5	M4	M4	M6		M5			M5	M5	M6				
tightening torque (Nm)	2	8		4	2		4	8	8		8	4	4	15		8			8	8	15				
actuator frame screws	M2		M3			M4					M6					M4		M5							
tightening torque (Nm)	1		2			4					15					4		8							

