



AG TYPE METAL MEMBRANE COUPLING

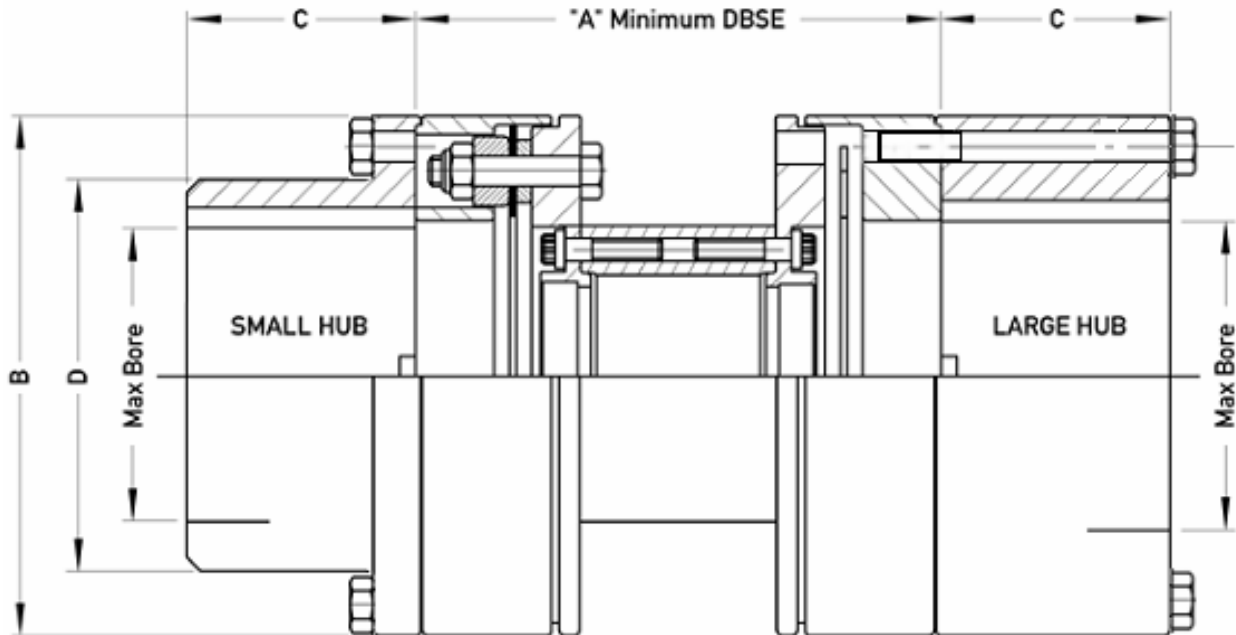
Installation and Assembly Instructions



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AG COUPLING

The following instructions apply to a standard AG coupling. The actual coupling supplied may vary depending on the customer's requirements and specifications. Where supplied, these instructions should be read in conjunction with the coupling general arrangement drawing.

SELECTION VERIFICATION

The user is responsible to ensure that the coupling ordered will in fact meet the duty requirements and the duty has not changed from the time that the coupling was originally selected. Autogard can supply the duty under which the coupling was originally selected.

INSTALLATION

Preparation

The coupling should be unpacked and examined for any signs of damage, which may have occurred during transit. Verify that all the parts have been properly supplied as per the order.

Check that the coupling bores and shaft separation are per the original order. Care should be taken to ensure that all spigots and bores are free from burrs. The Autoflex AG is typically fitted with a straight parallel bore and keyway for a light interference fit. Refer to the order for specifics related to the actual bore and keyway specified.

Standard Interference, the coupling hubs should be heated to 150°C (300°F) in an oil bath or an oven. Do not use spot heat or exceed 300°C (600°F) as this may cause flange distortion. Fit the hubs onto the shafts with the hub face flush with the shaft end or as specified in the General Arrangement Drawing. When clearance fit hubs are supplied, slide the hub onto the shaft and tighten the setscrews.

When taper (non-hydraulic mounting) bored hub is supplied, install hub without keys, lightly tap with soft mallet to ensure metal to metal contact, and record this position. Remove hub and reinstall with keyway (s) to the previously recorded position. Advance hub up the taper to the desired axial location, using preset axial stop device and dial indicator. The hub may need to be heated to reach desired position – follow the above heating limitations. Install shaft locknut.

For Taper Hydraulic Mounting consult Autogard for the appropriate installation instructions.

NOTE: Care must be taken to ensure that the coupling hubs are properly supported during installation to ensure that they do not slip.

Align Shafts

To align the shafts, place the equipment into its approximate location. Measure and set the DBSE (Distance Between Shaft Ends) of the equipment as per the original specification. This should correspond to the DBSE supplied on the General Arrangement Drawing where supplied.

Note: The DBSE is usually measured from the inner face of the hub, which usually relates to the overall length of the transmission unit.

For taper shaft installation, the DBSE may have to be adjusted by repositioning other hub on straight shaft, or repositioning connected machines.

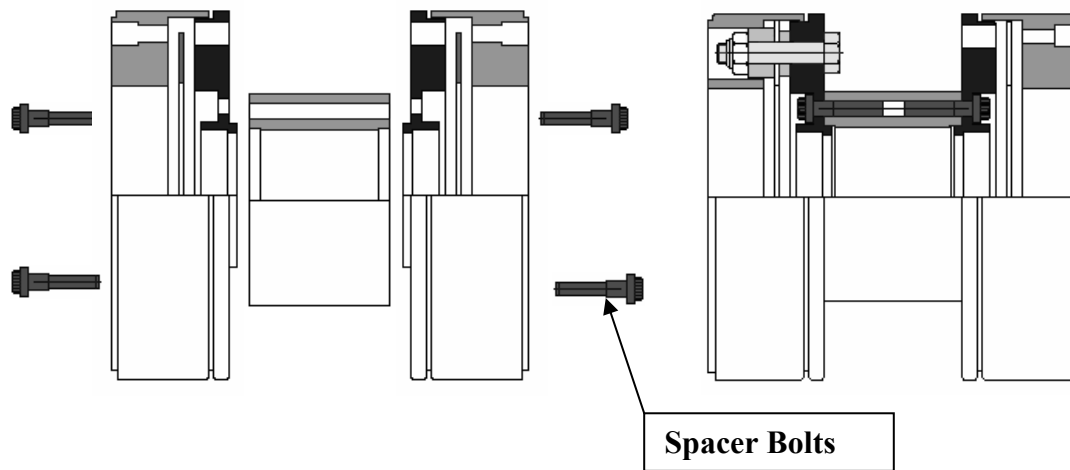
Align the centre line of the driving and driven shafts using the best available methods. Autogard recommends the use of Laser Alignment where available. The better the

alignment the lower the resultant loads will be transmitted onto the bearings of the driving and driven equipment. Autogard recommends that the misalignment be set at no more than 10% of the catalogue ratings. This will allow for misalignment, which occurs due to foundation settling, thermal growth etc.

The coupling alignment should be checked periodically to ensure that alignment deterioration is properly compensated.

Assembly

Check the spigot on the disc Pack Assembly and the spacer tube to ensure that they are free from dirt and burrs. Using transmission unit bolts provided assemble the spacer flanges to the spacer tube. Tighten the transmission bolts to the torque shown in table 1. Dynamic Balanced Transmission Units are factory pre-assembled.
DO NOT DISASSEMBLE.

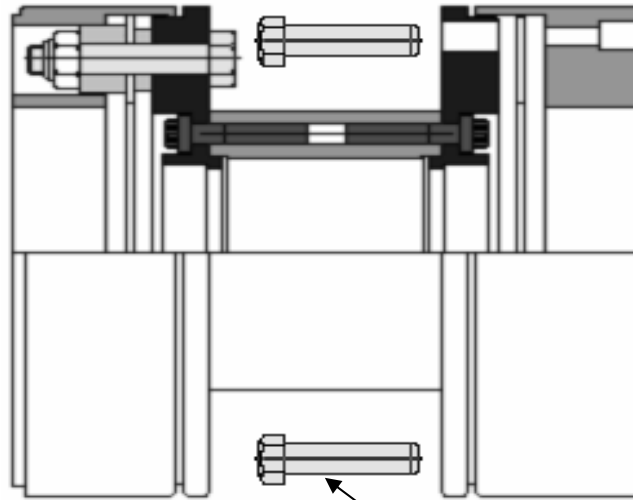


Spacer Bolt Tightening Torque

Coupling Size	Bolt Size (mm)	Bolt Tightening Torque (Dry) (ft-lbs)	Bolt Tightening Torque (Dry) (Nm)
163-4	NA	NA	NA
200-4	NA	NA	NA
163-6	M6	11	14
200-6	M6	11	14
275-6	M6	11	14
300-6	M8	26	35
350-6	M10	51	69
450-6	M10	51	69
500-6	M12	89	120
550-6	M12	89	120
600-6	M16	220	299
675-6	M16	220	299

Table 1

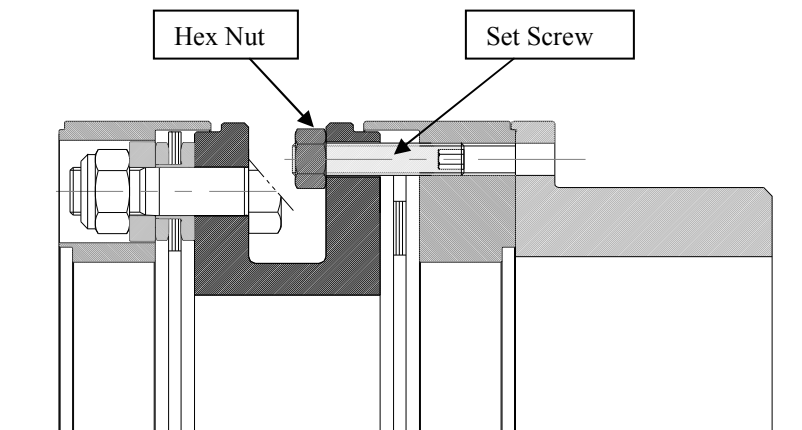
Check the spigot on both the hubs and the transmission unit to ensure that they are free from dirt and burrs. Using three of the standard hub bolts at each end (6 link coupling), or four of the standard hub bolts at each end (8 link coupling), uniformly collapse the guard rings and the spacer flanges and place the transmission unit between the mounted hubs as shown.



Evenly space two hub bolts (4-link couplings), or three hub bolts (6-link couplings), or four hub bolts (8-link couplings). Collapse the Transmission unit assembly.

Remove the compression bolts ensuring the transmission unit properly engages the hub spigot.

In case of very short spacers, where there is not enough room to install hub bolts (or any shorter bolts), set screws and hex nuts (not supplied by Autogard) can be used to collapse the transmission unit.



Install the set screws through guard ring first (threaded hole) and spacer flange (clearance hole) into the nut held on the inside face of the spacer flange. Collapse the transmission unit, and insert between hubs. Align hubs holes, loosen hex nuts, and withdrawal the set screws through hubs holes.

Install the bolts through the hub and tighten to the torque shown in Table 2 or as shown in the General Arrangement Drawing. Bolts should be tightened in a diametrically opposite sequence.

Hub Bolt Tightening Torque

Coupling Size	Hub Bolt Size (UNC)	Bolt Tightening Torque (Dry) (ft-lbs)	Bolt Tightening Torque (Dry) (Nm)
163-4	1/4	12	16
200-4	1/4	12	16
163-6	1/4	12	16
200-6	5/16	25	34
275-6	5/16	25	34
300-6	3/8	44	60
350-6	1/2	107	145
450-6	3/8	44	60
500-6	1/2	107	145
550-6	1/2	107	145
600-6	5/8	211	286
675-6	5/8	211	286
363-8	5/16	25	34
650-8	5/8	211	286

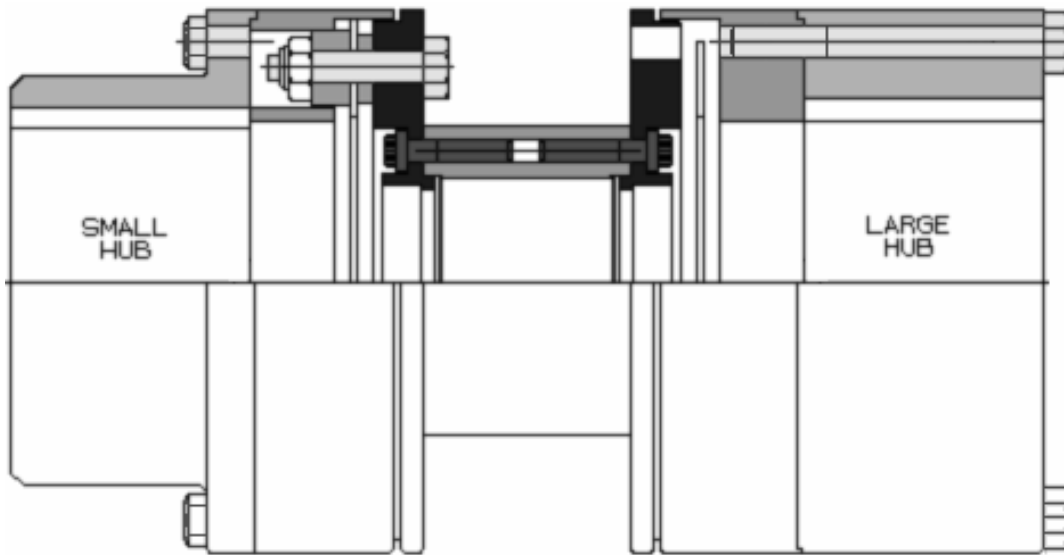
Table 2

Ensure compression bolts are removed prior to tightening any of the hub bolts.

Balance coupling hub bolts have been weigh balanced and must only be supplied as a set.

Disc packs are factory assembled. DO NOT loosen the disc pack fasteners.

The standard for balancing the AG is to component balance and as such match marks are not used. If match marks are present, the coupling has been specially balanced. The coupling must be assembled with the match marks in-line.



COMPLETE AG COUPLING ASSEMBLY.

Once the coupling has been installed as noted above, slowly rotate the machinery to ensure that everything moves freely.

IMPORTANT INSTRUCTIONS BEFORE START-UP:

- Coupling guards must be provided in accordance with local and national regulations.
- Make sure all fasteners have been properly installed and tightened per the supplied tables or the General Arrangement Draws.
- If possible, re-check the coupling alignment after the driver and driven foundation bolts have been tightened.
- Consult Autogard Engineering for clarification of any of the points outlined in this installation guide.
- Only authorised Autogard replacement parts are to be used.