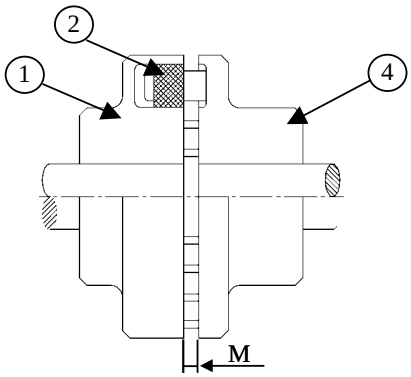
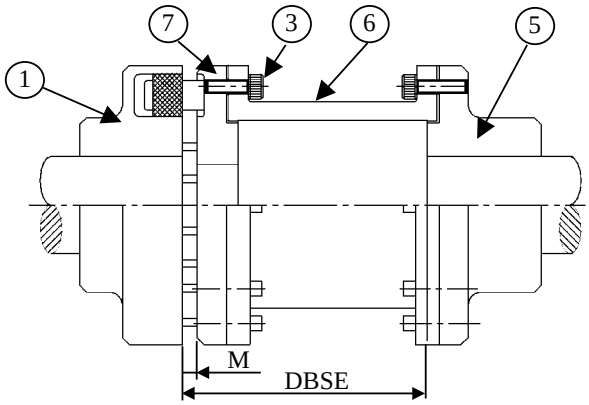
FIGURE 1a



Non-Spacer Sizes B068 to B180

FIGURE 1b



Spacer Sizes B080 to B180

REFERENCE	DESCRIPTION	REFERENCE	DESCRIPTION
1	Part 1 Hub	5	Part 5 Hub
2	Rubber Insert	6	Spacer
3	Spacer Bolt	7	Jaw Body
4	**Part 4 Hub**		

FOREWORD

These instructions are provided to familiarise the user with the coupling and its designated use. These instructions must be read and applied whenever work is carried out on the coupling and must be kept available for future reference.

ATTENTION These instructions are for the fitting, operation and maintenance of the coupling as used in rotating equipment and will help to avoid danger and increase reliability. The information required may change with other types of equipment or installation arrangements. These instructions must be read in conjunction with the instruction manuals for both the driver and driven machinery.

If the coupling is to be used for an application other than that originally intended or outside the recommended performance limits, John Crane must be contacted before its installation and use.

Improper handling, installation, or use of this coupling may affect any warranty. Contact the company for information as to exclusive product warranty and limitations of liability.

If questions or problems arise, contact your local John Crane sales/service engineer or the original equipment manufacturer as appropriate.

ATTENTION John Crane couplings are precision products and must be handled appropriately. Take particular care to avoid damage to spigots, mating faces, hub bores, & keyways.

These instructions are written for standard catalogue products, generally designed in accordance with the drawing shown.

SAFETY INSTRUCTIONS

The following designations are used in the installation instructions to highlight instructions of particular importance.

IMPORTANT is used for items of particular concern when using the coupling.

ATTENTION where there is an obligation or prohibition concerning the avoidance of risk.
where there is an obligation or prohibition concerning harm to people or damage to the equipment.

Storage

If the coupling is not to be used immediately, it should be stored away from direct heat in its original packing. All documentation supplied with the coupling should be retained for future reference.

Spares

When requesting spares always quote the full designation of the coupling

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PREPARATION

Remove coupling from packaging and carefully inspect for signs of damage. Remove protective coating/lubricant from bores & keyways. Remove all the bolts & nuts and dismantle the assembly.

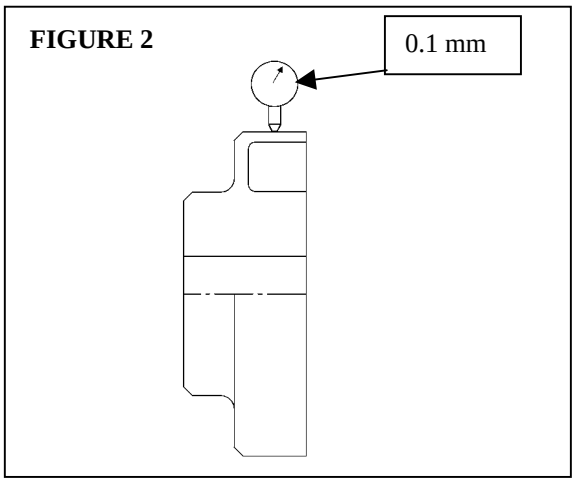
Hubs

Powerstream couplings are supplied either pilot bored, or finished bore and keyed.

Boring of Hubs

If finish bore and key is required, it should be bored to required finish size by using the outside diameter (OD) of coupling and the hub face as a reference i.e. turn bore concentrically with respect to coupling OD & not the pilot bore diameter. (Refer figure 2) Locate the key-way midway between two holes/lugs in the hub. A tapped hole is required in the hub above the key-way, generally midway along the hub length.

FIGURE 2



INSTALLATION OF COUPLING

Installation of hubs

Prior to installing the coupling, ensure that the machinery is made safe. Hubs must be adequately supported during installation to avoid accidental damage should they slip.

Ensure the hub bore and mating shaft are clean

Parallel Bored Hubs

Check the hub bore and shaft diameters to verify that the desired fit will be achieved. Install the key into the shaft key-way and with a little lubrication on the shaft, slide the hub onto the shaft. The key should be a tight sliding fit in the key-way. Secure the hub to the shaft in the correct axial position with the grub screw.

For normal applications the shaft ends should be flush with inner face of the hub. They can protrude beyond the clamping ring of the hub or remain inside if required, but sufficient gap should be allowed to take care of end float of both shafts (i.e. axial misalignment). Refer figure 1a & 1b. Ensure that the effective length of key is sufficient for transmission of rated torque of coupling.

COUPLING ASSEMBLY

Adjust the positions of the hubs on the shafts to maintain gap `M' as shown in figure 1a & 1b, and given in the table.

Tighten the setscrew over the keys. Ensure the rubber elements are fitted in slots provided in Part No. 1 (Hub).

For spacer type of couplings, the spacer assembly length is normally equal to the distance between shaft ends (DBSE). Refer figure 1b.

Non spacer Design

If the hub faces are flush with the shaft ends then for non-spacer couplings the distance between shaft ends (DBSE) is equal to gap M. (see figure 1a). Engage the lugs in hub (part 4) into the inserts located in the hub (part 1).
Check the gap 'M', and if the shaft alignment is set then the coupling is ready for use.

Spacer Design

Set the DBSE to the required gap. Ensure rubber inserts are in the slots provided in hub (part 1)

Locate jaw body (part 7) into the hub (part 1) as shown in figure 1b. Insert the spacer in between the Jaw body & hub (part 5).
Tighten all bolts (part 3) as shown in figure 1b, to the tightening torque shown in the table.
After completing assembly check gap 'M' is correct as given in table, and if the shaft alignment is set then the coupling is ready for use.

Shaft Alignment

Good shaft alignment is critical for the prolonged life of these couplings. The table gives the maximum permissible misalignments at initial assembly. John Crane alignment procedures should be followed to achieve these limits. Refer to John Crane data sheet **I-ALIGN**

Initial Settings

Coupling Size	**068**	**080**	**095**	**110**	**125**	**140**	**160**	**180**
Spacer Bolt Tightening torque (N-m)	N/A	13	13	31	31	62	62	62
Flexible Gap M (mm)	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	2 to 6	2 to 6
Parallel / Radial ΔKr (mm)	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1
Axial ΔKa (mm)	±0.4	±0.4	±0.4	±0.4	±0.4	±0.4	±0.4	±0.4
Angular ΔKw (degree)	0.25°	0.25°	0.25°	0.25°	0.25°	0.25°	0.25°	0.25°

OPERATION, INSPECTION AND MAINTENANCE

Before starting the machinery, ensure that all necessary safety procedures are being observed and coupling guards are fitted

Routine examination should include a periodic check on the tightness of fasteners and visual inspection of transmission components for signs of fatigue or wear.
If the coupled machinery is disturbed at any time, shaft alignment should be re-checked. Alignment checking is recommended if a deterioration of installation alignment during service is suspected.

Maintenance work must only be carried out by suitably qualified personnel when the equipment is stationary and has been made safe.
Failures are rare and can generally be attributed to excessive misalignment or / and severe torsional overload. In all cases of coupling failure, the cause should be identified and corrected before replacing the coupling.

ATTENTION When repairing John Crane Powerstream™ flexible couplings, only John Crane approved parts should be used.