## Component Assembly Guide Component Sets

1. Clean all components prior to assembly and installation.
2. The gearing components must be maintained as a matched set.
3. Coat the non-bolting surfaces of each component with a thin layer of lubricant to protect against rust and to ease assembly.
4. If dowel pins are used for flexspline mounting, match drill the output shaft prior to dowel pin installation.
5. When a clamp ring is used to mount an HDC/CSF flexspline, ensure the ring OD is less than the diameter of the flexspline's mounting boss. Mounting rings require an adequate radius at its OD to prevent damage to the mating flexspline diaphragm surface.
6. To assemble, insert the wave generator into the open end of the flexspline. Slightly tilting the wave generator during installation may ease the process.
7. Slide the circular spline over the flexspline. For cup style harmonic gears, sliding from the closed end is generally easier and preferred. Slowly rotating the wave generator eases installation.
8. Lubricate final assembly per "Lubrication Guide"

Recommended assembly methods are shown below.

## Cup Style Assembly Guide



## Hat Style Assembly Guide



If possible, check the engagement symmetry to ensure there is an equal amount of space between the flexspline and circular spline where the teeth are not engaged. "A1" should be equal to "A2". If the assembly is not symmetric, disassemble and start the assembly process again. An incorrectly aligned assembly will function, but it will be subject to reduced life and performance.

```
rd-navbar rd-navbar-transparent rd-navbar-original rd-navbar-static rd-navbar--is-stuck
```

Correct


Incorrect


