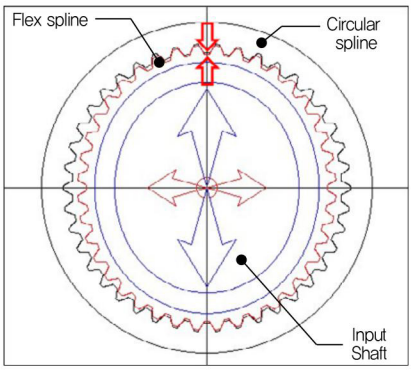
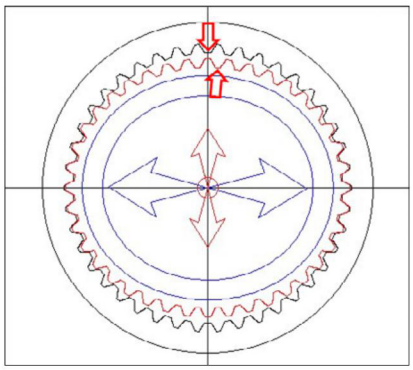
1. 작동원리 Operating principle

■ 작동원리 Operating principle



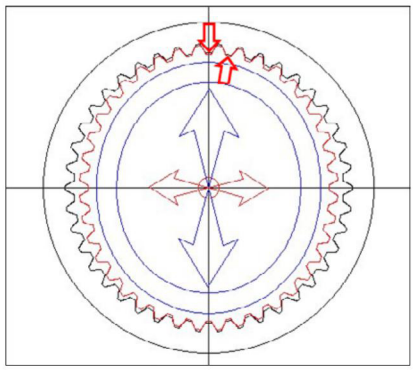
SHAFT 0°

- Flex spline의 치가 상하로 Circular spline치와 맞물리고 좌우에서는 완전히 분리됨.
- The teeth of Flex spline are interlocked with the teeth of Circular spline at the top and bottom and completely separated from the left and right.



SHAFT 90°

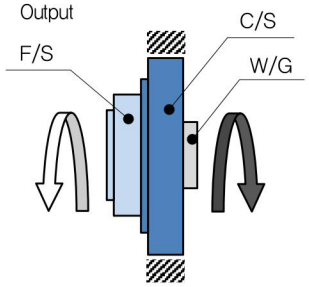
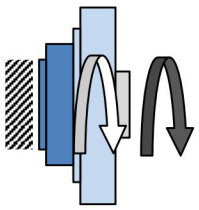
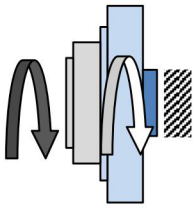
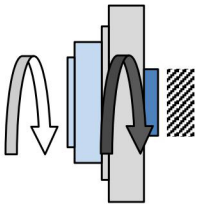
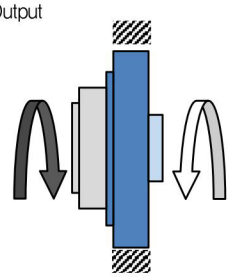
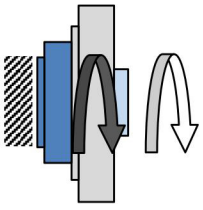
- Input Shaft를 왼쪽(CCW)으로 돌리면 Flex spline이 탄성변형하여 Circular spline 치와 물리며 오른쪽(CW)으로 이동함.
- When Input Shaft is turned to the left(CCW), the Flex spline is elastically deformed and engages with the teeth of Circular spline and moves to the right(CW).



SHAFT 180°

- Circular spline 180° CCW 방향으로 회전하면 Flex spline 1개치가 CW방향으로 이동함.
- When Circular spline rotates in the direction of 180° CCW, one teeth of Flex spline moves in the CW direction.

■ 회전방향 및 감속비 Rotational direction and reduction ratio

감속장치 REDUCER	① 출력 : Flex spline Output  입력 : W/G 고정 : C/S Input Fixed	② 출력 : Circular spline Output  입력 : W/G 고정 : F/S Input Fixed	③ 출력 : Circular spline Output  입력 : F/S 고정 : W/G Input Fixed
	$i = \frac{-1}{R}$	$i = \frac{1}{R+1}$	$i = \frac{R}{R+1}$
증속장치 OVERDRIVE	④ 출력 : Flex spline Output  입력 : C/S 고정 : W/G Input Fixed	⑤ 출력 : Wave generator Output  입력 : F/S 고정 : C/S Input Fixed	⑥ 출력 : Wave generator Output  입력 : C/S 고정 : F/S Input Fixed
	$i = \frac{R+1}{R}$	$i = -R$	$i = R+1$

R : 속도비 Speed ratio i : 감속비 Reduction ratio