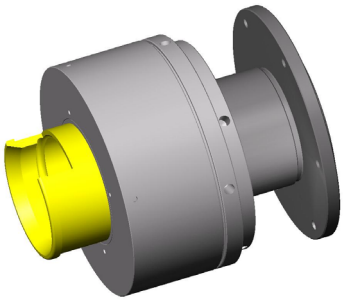
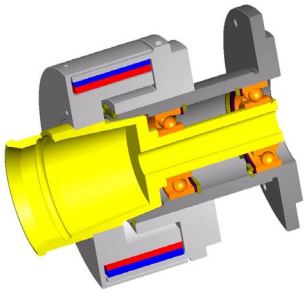
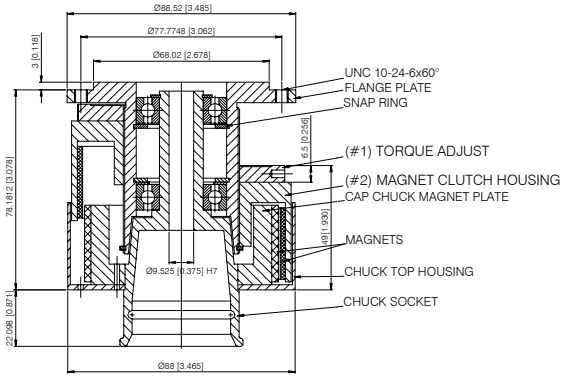
HSV Series
FLANGE TYPE

PERMANENT-MAGNET HYSTERESIS CLUTCH







TECHNICAL DATA	Torque Adjustable[1] (Nm)	Max.Power Dissipation[2] (W)	Max.Operating Speed (rpm)	Max.Operating Temperature (^{0}C)	Mass (kg)	Inertia Inside (10^{-3}kgm^2)	Inertia Outside (10^{-3}kgm^2)	Max.Forces Radial (N)	Max.Forces Axial (N)
Type HSV	**0.3 - 3.0**	**30 (40)**	**100**	**0^0 - 110^0**	**2.5**	**0.79**	**1.62**	**400**	**250**

1) Other torque ranges available on request.

Torque Setting Instruction (0.3 - 3.0 Nm)
a) Loosen nut in part #1, turn the nut to right (clockwise thread) so that Part #2 can be moved.
b) Turning the part #2 clockwise (right) results in reducing the torque value. Turning the part #2 counter clockwise (left) results in increased value of torque.
c) After setting the part #2, the locking nut in part #1 must be locked again (left, or counter clockwise) so the torque setting cannot change in operation.

2) Maximum speed dependant on overload cycle and torque resulting in maximum heat dissipation.
3) Standard power dissipation rating using standard rare-earth magnets, high dissipation rating (in parentheses) using SmCo magnets.
4) Magnet material is rust proof.
5) Standard model is made of stainless steel, with stainless-steel bearing, rare-earth magnets and sintered hysteresis material.
6) Hysteresis material AlNiCo rust proof coating of epoxy resin.
7) Deep row ball bearing (stainless-steel) type SS6003-2RZ.
8) Application: Capping of orange juice, apple juice, or other liquid filled bottles.
9) Custom size with different adapters available.
10) Outside rinsing - steam.

Power Dissipation Calculation

Hysteresis magnetic clutches slip if an overload occurs. The losses due to the slip rotation and torque are converted into heat. If the power to be dissipated exceeds the heat dissipation capabilities of clutch, it will superheat, damaging the magnets. The following formula should be used to insure that the maximum power loss of the selected clutch is sufficient for the desired operation mode:

$$Pv = \frac{T * n_S * d}{9.55}$$

Pv = Max.power loss (W)
T = Applied torque (Nm)
n_s = Slip rotation speed (min^{-1})
d = Duty cycle (%)

RIMTEC CORPORATION
211 S. Lombard Rd
Addison IL 60101
Tel: (630) 628 - 0036
Fax: (630) 628 - 0041
Email: info@RimtecCorporation.com
www.RimtecCorporation.com