



APEX DYNAMICS

AT - Series

APEX.AT.SHRINK.EN.2010.001

SHRINK DISC INSTALLATION MANUAL

- Rotating shaft inside the hollow shaft is fixed by shrink disc.

C / FC Series	D1	D2	D3	H1	H2
SD-d16xdw14	41	16	26	15	18.5
SD-d22xdw18	50	22	36	19.5	23
SD-d25xdw22	50	25	38	19.5	23
SD-d44xdw32	80	44	61	25.5	29.5
SD-d50xdw40	90	50	70	27.5	31.5
SD-d62xdw50	110	62	86	30.5	34.5
SD-d68xdw55	115	68	86	30.5	34.5
SD-d75xdw60	138	75	100	32.5	38

Note: Recommend tolerance for rotating shaft is h6.

In addition, the contact surfaces of the shaft ends and hollow shaft must have a mean roughness depth of $R_a \leq 3.2 \mu\text{m}$. Shaft and the hollow shaft must be manufactured from materials with the following mechanical properties:

- ◆ Yield strength $Re \geq 340 \text{ N/mm}^2$
- ◆ E-module about 206 kN/mm^2

Attention:

- Rough surface will reduced transmitted torque.
 - ◆ Do not separate shrink disc apart before assemble, cleans rotating shaft outer diameter and hollow shaft inner diameter.
 - ◆ Make sure that the thread and under the head of the clamping bolts are light oiled
 - ◆ Make sure the tapered parts of the shrink disc are light oiled
 - ◆ Apply light weight oil on hollow shaft outer diameter for rust prevention only
- Shrink disc clamping pressure will force hollow shaft deformed.
 - ◆ Fixed the rotating shaft position before tighten the shrink disc bolts.
- Tilted shaft will caused damaged.
 - ◆ Make sure the alignment of rotating shaft with hollow shaft.
 - ◆ Do not use force to install rotating shaft into hollow shaft.
 - ◆ Do not use hammer or access force when installed.
- ◆ Follow cross patent to tighten the shrink disc bolts. Separates to two or three step to finish. Confirmed the bolts tightening once again after finished. Tightening torque for bolt as chart:

AT-C & AT-FC Series	Bolt size	Tightening torque class 12.9	
		[Nm]	
065 - 075 - 090 - 110	M5	6	
140 - 170 - 210 - 240	M6	12	
280	M8	30	

- ◆ Make sure the tightening of rotating shaft. If not, double check the tolerance of rotating shaft.

For more information, please visit our website: www.apexdyna.eu

High Precision Planetary Gearboxes