

DETAILS OF COMPONENTS / ASSEMBLY OF ONE ACTUATOR:

ITEM

Component	QTY	Material/Grade	Drwg No./CAT No.	Notes
1. SHUTTLE				
Titanium Shaft	1	See list of drwgs	See list of drwgs	
Upper magnets	8	See list of drwgs	See list of drwgs	
Middle magnets	8	See list of drwgs	See list of drwgs	
Lower magnets	8	See list of drwgs	See list of drwgs	
Ceramic washers	2	See list of drwgs	See list of drwgs	
Magnet core	1	See list of drwgs	See list of drwgs	
Magnet retaining clamp	1	See list of drwgs	See list of drwgs	
Magnet resin	n/a	Scotch-Weld-9323-2 B/A		Between magnets and between magnets and core
Resin hardner	n/a			
Shaft Stop	1	See list of drwgs		Made from Stainless steel to stop magnets from falling
Readout Vane	1	See list of drwgs	See list of drwgs	manufactured by wire EDM.
Bolts, scrws, etc	7	M1.6 x .35 -- 5mm long		
DLC coating	n/a	See list of drwgs	See list of drwgs	
2. STATOR				
Coils	24	See list of drwgs	See list of drwgs	
Coils resin	n/a	DOLPHON XL-2102		max operating temp 200°C (class N)
Resin hardner		XA 9321		
Connectors	4	PA35 FV 13.5 A	Farnell 113-0904	
Teflon discs	2	See list of drwgs	See list of drwgs	
Copper shims	150	See list of drwgs	See list of drwgs	
3. WATER COOLING SYSTEM				
Conductive paste	n/a	Electrolube HTSP		Silicon base heat sink compound Code EHTSP50T
Copper pipes		See list of drwgs	See list of drwgs	
Connectors	1	1/4 inch Swaglock		
Cooling Pipe Support	1	See list of drwgs	See list of drwgs	
4. HOUSING				
Housing cylinder	1	See list of drwgs	See list of drwgs	

Housing end plates	2	See list of dwgs	See list of dwgs	
5. VACUUM STRUCTURE/ASSEMBLY				
Central Vacuum tube	1	See list of dwgs	See list of dwgs	
Weld	n/a	Autogenous TIG sealing weld		
6. SUPPORT & OPTICAL DRIVE STRUCTURE				
Upper bearing	1	See list of dwgs	See list of dwgs	
Lower bearing	1	See list of dwgs	See list of dwgs	
Upper flange	1	RAL	RAL	
Lower flange	1	RAL	RAL	
CIRCLIP -E TYPE -2.3 mm groove dia	2	RAL	RAL	
M3 X 16 mm Cap Head Screw	4	RAL	RAL	
M4 X 25 mm Cap Head Screw	4	RAL	RAL	
M6 X 25 mm Cap Head Screw	4	RAL	RAL	
M6 X 30 mm Cap Head Screw	12	RAL	RAL	
M8 X 80 mm Cap Head Screw	8	RAL	RAL	
Collimator mounting	1	RAL	RAL	
Collimator mounting - offset	1	RAL	RAL	
DN40 window holder	1	RAL	RAL	
Window holder	1	RAL	RAL	
Window holder top hat	1	RAL	RAL	
Modified M3 X 40 cap head screw	2	RAL	RAL	
DN25 copper seal	1	RAL	RAL	
DN40 copper seal	3	RAL	RAL	
DN63 copper seal	1	RAL	RAL	
DN40 saphire window	2	RAL	RAL	
7. PROTECTION				
Earthing				
Laser cover end cap		See list of dwgs	See list of dwgs	
Laser cover body		See list of dwgs	See list of dwgs	
Laser cover body - lid		See list of dwgs	See list of dwgs	
Stator wiring cover		See list of dwgs	See list of dwgs	