

**Water Turbine Manufacturing  
QAP for Tooling Items**

Indent no	:	820210027		
	Sl. No.	Description		
	1	End mill Cutter dia 32 mm, No of pocket for insert: Minimum-3 Nos, OAL of cutter: Minimum 250 mm & Shank dia 32 mm.		
	2	Insert suit to item #1, PVD/CVD coated, required for machining of S.S. material such as ASTMA743 CA6NM, ASTM A516, ASTM A240 etc. Insert should have following parameter: Insert cutting edge length/Size of insert: minimum 15 mm, Thickness of insert: minimum 5 mm & depth of cut: minimum 7 mm.		
	3	Screw suit to item #1 i.e. End mill cutter dia 32 and item #2-insert.		
	Note:	(1) All Items #1, #2 & #3 shall be purchased from same make/single source for proper fitment. (2) Above items must be suitable for machining different grade of S.S material such as ASTM A240, ASTM A743 CA6NM etc. (3) Vendor have to supply the full quantity of all items in 1 (one) lot.		
Check List	:	FOR ITEM SL NO. #01, #02 & #03	-	TC & GC required.
			-	Item to be checked as per Description.
			-	Shop trial will be conducted on pama machines, while machining of different grade of S.S. material such As ASTM A240, ASTM A743 CA6NM etc, at GJB block on following parameter, : (1) Maximum machine RPM of pama machines: 1000 RPM. (2) Minimum feed required: 400 mm/min. & (3) Minimum depth of cut: 7 mm.
			-	Final acceptance of all items shall be given after successful trial at WTM,BHEL,Bhopal.

Akhilesh Kumar  
Engr/WTM

Abhishek Sharma  
24/01/22  
अभिषेक शर्मा / Akhilesh Kumar  
अभिषेक शर्मा / Akhilesh Kumar  
जल टरबाइन विभाग / Water Turbine Division  
बी.एच.एल., भोपाल / BHEL, BHOPAL  
बी.एच.एल., भोपाल / BHEL, BHOPAL