Mechanical Engineering Department
Indian Institute of Technology, Delhi

NOTICE INVITING QUOTATION

Date: 05/10/ 2014

Sealed quotations are invited for "Cutting Tools and holders for Tornos CNC Turn mill Deco 13e". The quotations should be submitted in a sealed cover (separate bids: technical and commercial) to **Prof. Naresh Bhatnagar**, Mechanical Engineering Department , Indian Institute of Technology Delhi, Hauz Khas, New Delhi 110016 on or before 21.10.2014 (Friday). Late submission will not be considered.

The sealed quotations are to be submitted in one envelope having two separate envelopes for;

A- Technical Quote (Technical Specifications only)

B- Financial Quote (Technical & Financial)

Both the envelopes A & B should be enclosed in an outer envelope, which should be sealed and addressed to, clearly mentioned on top right of the envelope Quotation for "Cutting Tools and holders for Tornos CNC Turn mill Deco 13e".

Institute reserves the right to accept or reject any of the offers without assigning any reasons. The detailed specifications/ drawings of each individual component of the system are given below to the nearest details, however, one can quote a similar or better make.

APPLITEC End Mill Cutter		
Item Code	***Description***	***Quantity***
3336-1.8	endmill Ø1.80 x FL 3.00 x Oal 50 x shank 6.00 z=3	5
3336-5.0	endmill Ø4.00 x FL 6.00 x Oal 54 x shank 6.00 z=3	5
3336-2.0	endmill Ø2.00 x FL 3.00 x Oal 50 x shank 6.00 z=3	5
3371-1.0	endmill Ø1.00 x FL 3.00 x Oal 39 x shank 3.00 z=3	5
	Centre Drill	
2680-2-90	Ø 2 mm	5
	Walter End Mill Cutter	
H302731-1	End mill Ø 1 mm	10
H302731-1.3	End mill Ø 1.3 mm	10

DAGGER MASTER Drilling tool and centring tool			
Item Code	**Description**		**Quantity**
633.100	CAR. DRILL Ø1.00 X FL 6.00 X 3.00 X OAL 38		10
633.120	CAR. DRILL Ø1.20 X FL 7.00 X 3.00 X OAL 38		10
633.200	CAR. DRILL Ø2.00 X FL 11.00 X 3.00 X OAL 45		10
633.220	CAR. DRILL Ø2.20 X FL 13.50 X 3.00 X OAL 45		10
633.185	CAR. DRILL Ø1.70 X FL 11.00 X 3.00 X OAL 45		10
638.45	CAR. DRILL Ø3.00 X FL 25.00 X 6.00 X OAL 64		5
NC Spot drill			
615.020	NC CAR. DRILL Ø2.00 X FL 8.00 X 2.00 X OAL 40	α=90°	5
615.040	NC CAR. DRILL Ø4.00 X FL 10.00 X 4.00 X OAL 45	α=90°	5
	OR		
Ø 1 mm	A1163-1 (WALTER)		10
Ø 1.25 mm	A1163-1.25 (WALTER)		10
Ø 1.4 mm	A1163-1.4 (WALTER)		5
Ø 1.5 mm	A1163-1.5 (WALTER)		10
Ø 1.70 mm	A1163-1.70 (WALTER)		10
Ø 1.85 mm	A1163-1.85 (WALTER)		10
Ø 2 mm	A1163-2 (WALTER)		10
Ø 2.2 mm	A1163-2.2 (WALTER)		10
Ø 2.25 mm	A1163-2.25 (WALTER)		10

IFANGER MicroTurn Bottoming tool		
Item Code	**Description**	**Quantity**
MTEN 407020-R-TIALN	MTEN 407020-R-TIALN IFANGER MicroTurn Bottoming tool	***10***
MTEN 407020-R-TIALN	MTEN 418040-R-TIALN IFANGER MicroTurn Bottoming tool	20

Threading tool		
Item Code	**Description**	**Quantity**
APPLITEC INSERT (746-A60°)	APPLITEC INSERT (746-A60°) Threading Insert	20
APPLITEC HOLDER 740-12	APPLITEC HOLDER FOR INSERT (746-A60°)	1
WHIZCUT INSERT (K15ER T60-5)	WHIZCUT INSERT (K15ER T60-5) Threading Insert	10

External Thread Whirling Tools

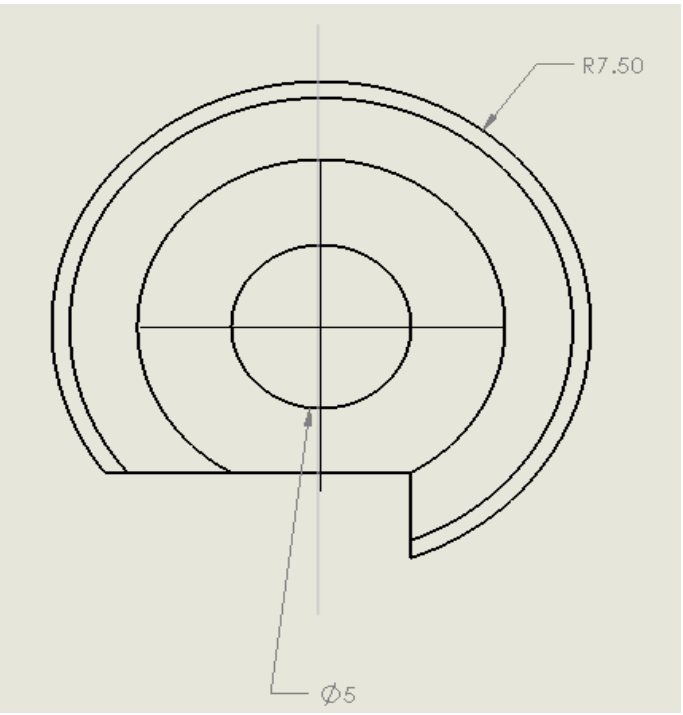
Note: All dimensions are in mm

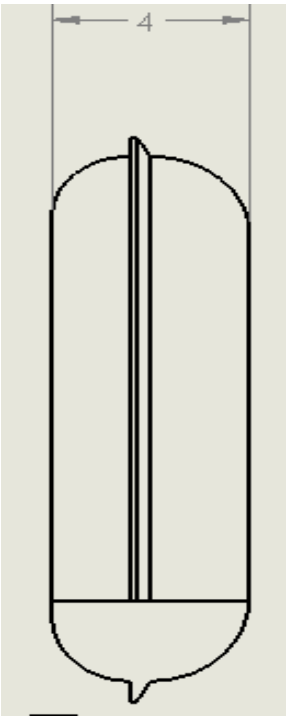
Circular Cutter/Insert dimensions for TORNOS 380014 external whirler head

Whirling head	TORNOS 30708f1
Machine	Tornos Deco 13e 9243
Whirler head specification	Tornos 380014

Cutter Dimensions (fig.1 and fig.2)

Outer diameter of cutter	15 mm
Thickness	4 mm
Boring	5 mm





Requirement: Two sets (In each set there are three bits/inserts)

Screw Type and Size	Thread diameter d_1		Core diameter d_5		Crest width, e	Thread pitch, P	Leading edge radius, r4	Trailing edge radius, r5	Leading edge angle α	Trailing edge angle β
HA 1.5	1.5	0	1.1	0	0.1	0.5	0.3	0.1	35	3
		−0.15		−0.10						
HA 2.0	2	0	1.3	0	0.1	0.6	0.4	0.1	35	3
		−0.15		−0.10						

HA 2.7	2.7	0	1.9	0	0.1	1	0.6	0.2	35	3
		−0.15		−0.15						
HA 3.5	3.5	0	2.4	0	0.1	1.25	0.8	0.2	35	3
		−0.15		−0.15						
HA 4.0	4	0	2.9	0	0.1	1.5	0.8	0.2	35	3
		−0.15		−0.15						
HA 4.5	4.5	0	3	0	0.1	1.75	1	0.3	35	3
		−0.15		−0.15						
HA 5.0	5	0	3.5	0	0.1	1.75	1	0.3	35	3
		−0.15		−0.15						

Table 1:Dimensions for HA screw threads

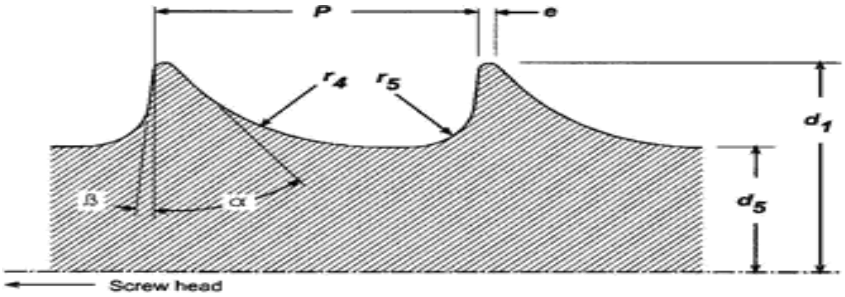


Fig. 3 Schematic diagram of HA screw thread dimension (Table 1)

2. HB Screw (fig. 4)

Requirement: Two sets (In each set there are three bits/inserts)

Screw Type and Size	Thread diameter d_1		Core diameter d_5		Crest width, e	Thread pitch, P	Leading edge radius, r4	Trailing edge radius, r5	Leading edge angle α	Trailing edge angle **β**
HB 4.0	4	0	1.9	0	0.1	1.75	0.8	0.3	25	5
		−0.15		−0.15						

Table 2: Dimensions for HB screw threads

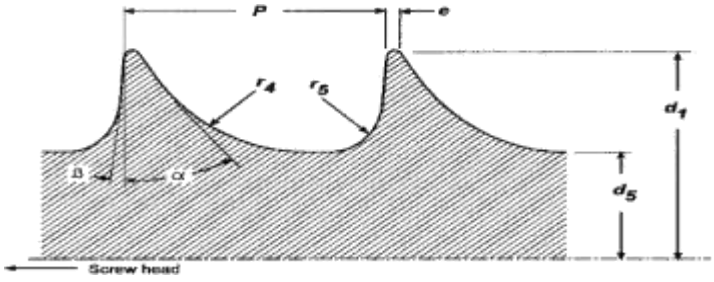


Fig. 4 Schematic diagram of HA screw thread dimension (Table 2)

3. HC Screw (fig. 5) Requirement: Two sets (In each set there are three bits/inserts)

Screw type and size	Thread diameter, d1	Core diameter, d5	Thread pitch, P	C max
HC 2.9	2.79 – 2.90	2.03 – 2.18	1.06	0.1
HC 3.5	3.43 – 3.53	2.51 – 2.64	1.27	0.1
HC 3.9	3.78 – 3.91	2.77 – 2.92	1.27	0.1
HC 4.2	4.09 – 4.22	2.95 – 3.25	1.27	0.1

Table 3:Dimensions for HC screw threads

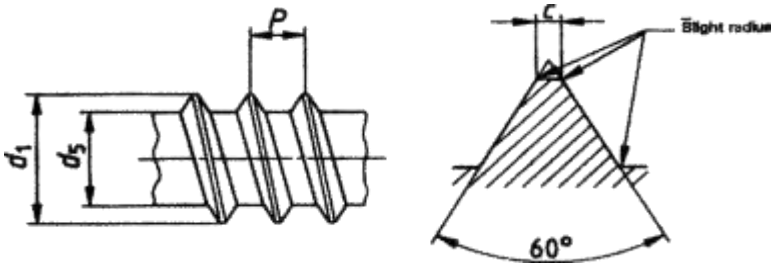


Fig. 5 Schematic diagram of HC screw thread dimension (Table 3)

4. HD screw (fig. 6) Requirement: Two sets (In each set there are three bits/inserts)

Screw type and size	Thread diameter, d1	Core diameter, d5	Crest width, e	Thread pitch, P	Leading edge angle α	Trailing edge angle **β**
HD 4	3.97 – 4.03	2.89 – 2.95	0.1	1.59	45	10
HD 4.5	4.47 – 4.53	2.89 – 2.95	0.1	2.18	45	10

Table 4: Dimensions for HD screw threads

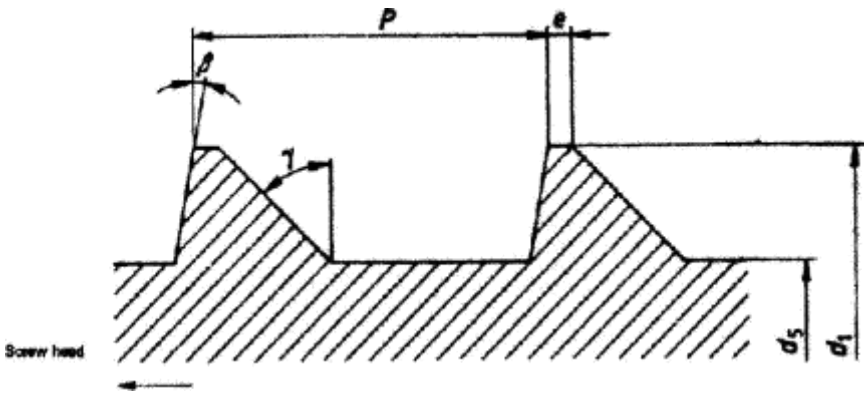


Fig. 6 Schematic diagram of HD screw thread dimension (Table 4)

5. Buttress thread (fig.7)

Requirement: 5 sets (In each set there are three bits/inserts)

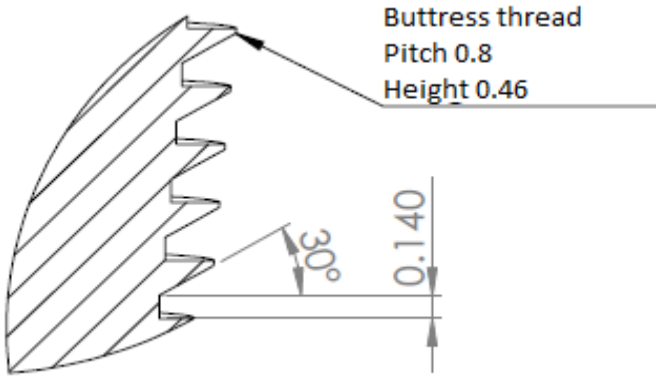


Fig. 7 Schematic diagram of Buttress screw thread dimension

6. Profile1: (fig. 8)

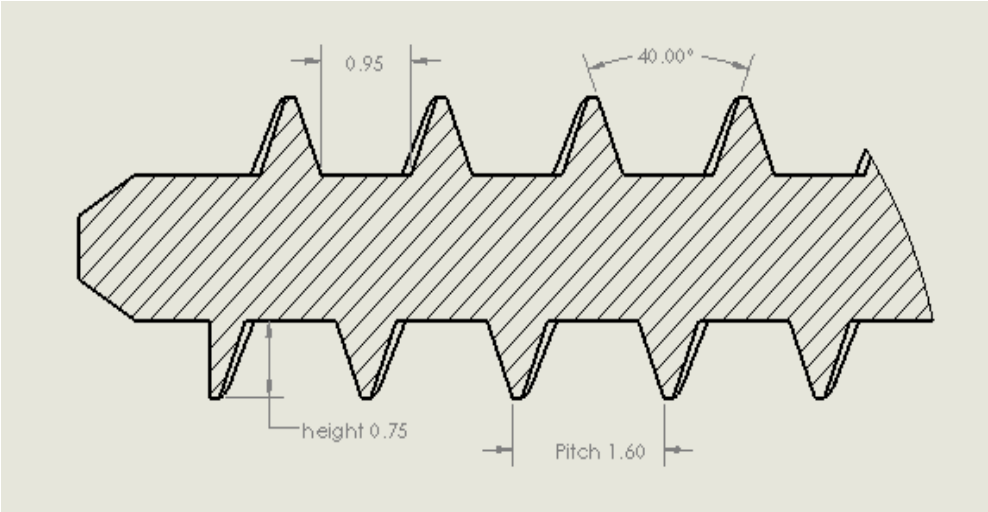


Fig. 8 Schematic diagram of
profile 1

7. Profile 2 (fig. 9)

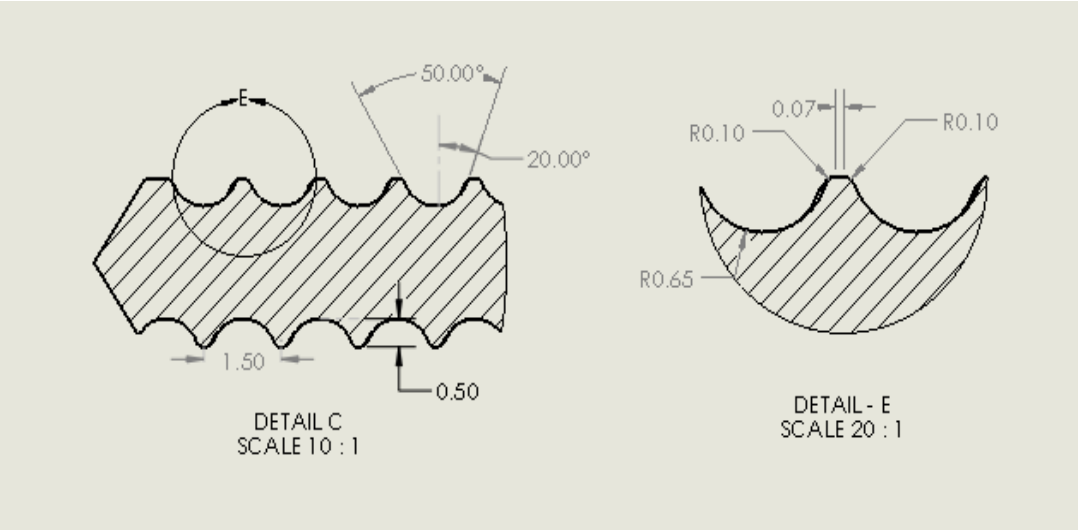


Fig. 9 Schematic diagram of profile 2

Terms and Conditions

Envelope A: Technical Quote: The following details are to be enclosed (Mention clearly on this envelope – Technical Quote)

1. Letter from the manufacturer specifically to quote for this NIQ is to be attached for the authenticity of dealership/ agency and the dealer should be an authorized service provider.

2. Technical brochures mentioning all details with complete address of the principals.

3. A compliance statement for required specifications should be attached.

4. Firm MUST provide a compliance statement vis-à-vis specifications in a “tabular form” clearly stating the compliance and giving justification, if any supported by technical literature with clear reference of page number, paragraph or lines. This statement must be signed, with the company seal, by the tenderer for its authenticity and acceptance that any incorrect or ambiguous information found submitted will result in disqualification of the tender. The quotation should be complete in all respects. (as per IIT-Delhi rules).

5. Any optional equipment / accessory advised to be included in the quote.

6. a) List and addresses of organizations [in India and abroad – with contact landline numbers] where the equipment has been supplied in last 3 years.

b) Address in India where a live demonstration of the instrument can be arranged, if possible.

7. a) Details of similar equipment supplied to preferably Indian Institute of Technology/ National Institute of Technology/Indian Institute of Science, India specifying the Department/Centre/lab to which the equipment was supplied, with references.

b) Mention if the equipment is being maintained by your organization. Address of the technical office, in India, with telephone and FAX numbers. Please clarify the type of support available in India.

8. If quote is for imported equipment, Sole Agency-ship certificate on the letterhead of the principal company with current dates, if quotation is from an Indian Agent. This is MUST to qualify, in Technical Envelope

9. In case the items are proprietary products of the company, a proprietary item certificate stating the same may be provided with latest date.

10. Specifications form should be similar to the given major specifications.

Envelope B: Financial Quote: The following details are to be enclosed/ ensured. (Mention clearly on this envelope – Financial Quote)

1. The quotations for the equipment in foreign exchange, if it is to be imported. The cost of spares and optional equipment are to be quoted separately. The cost should be based on FOB, Factory. If equipment is indigenous, the quote should be in INR.

2. Taxes, terms and conditions should be clearly mentioned.

3. Institute makes payment after delivery. The payment is by RTGS for which NEFT form need to be duly filled and complied. In case the payment terms are different, it should be mentioned clearly. If equipment is to be imported, the address of the company in whose name the LC is to be opened should be stated.

4. Payment terms and conditions should be clearly mentioned

8. Validity of the quotation should be at least four months. Vendors will do the installation and demonstration of the equipment at IIT Delhi premises without any additional charges.

9. The delivery period to be clearly specified and should be at the earliest.

Dr. Naresh Bhatnagar
Professor
Mechanical Engineering Department
Room No. 178, Block-III
Indian Institute of Technology – Delhi
Hauz Khas, New Delhi – 110016, INDIA
Tel # 091-11-26591139 (O)

Note: The institute reserves the right to accept (or) reject any/all quotations without assigning reasons thereof. It is preferable that the entire lot of tools be quoted and supplied.