

**GOVERNMENT OF INDIA
MINISTRY OF TEXTILES
OFFICE OF THE TEXTILE COMMISSIONER
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No. 28(19)/2005-MS/

Date : 2nd Dec., 2005

**Circular No. 7
(2005-2006 Series)**

Sub : Technology Upgradation Fund Scheme (TUFS).

1. Decisions taken by Technical Advisory and Monitoring Committee (TAMC) in its 27th meeting held at Mumbai on 28th October, 2005 and Inter Ministerial Steering Committee (IMSC) in its 20th meeting held at New Delhi on 17th Nov., 2005.

(i) Designation of Indian Bank as an additional nodal bank under TUFS.

The Inter-Ministerial Steering Committee (IMSC) in its 20th meeting held at New Delhi on 17th Nov., 2005 decided to co-opt Indian Bank as an additional nodal bank under TUFS for the cases financed by them.

(ii) Reducing delay in interest reimbursement.

The Committee decided that there should not be delay beyond one week for each level—from branch to Head Office, from Head Office to Branch and from Branch to TUFS beneficiaries. The Committee decided that this norm be followed by all banks after 1st of January, 2006 in any case.

(iii) Fixing of time limit for sanction of loan under TUFS, clearance of TUF eligibility by Nodal Agency and release of subsidy to expedite the coverage of units under TUFS.

The Committee decided to fix the time frame for different processing stage as under:

Sr. No.	Processing stage	Time frame
1.	Sanction of loan	One month of submission of complete application under TUFS.
2.	Determination of eligibility.	Eligibility of a case within 4-6 weeks of sanction of the loan.
3.	Release of TUFS subsidy	There should not be delay beyond one week for each level—from branch to Head Office, from Head Office to Branch and from Branch to TUFS beneficiaries.

(iv) **Inclusion of imported second hand machinery for manufacture / finishing of non-wovens and conversion machinery non-woven into finished products.**

Second hand imported machinery for manufacture / finishing of non-woven and conversion machinery for non-woven into finished products subject to 10 years vintage with residual life of minimum 10 years has been covered. Para 3.2 (2) (k) of GR on TUFSS is accordingly replaced as under :

3.2 (2) (k) : Second hand imported machinery for manufacture / finishing of non-woven and conversion machinery for non-woven into finished products subject to 10 years vintage with residual life of minimum 10 years.

Note : Since the description of some of the machines for non-woven is similar to spinning machinery, it is clarified that above second hand machines are eligible exclusively for non-wovens and convertors of non-wovens into finished products.

(v) **Utilisation of funds by the additional nodal banks.**

IMSC requested additional nodal banks to utilize at least 50% of the funds released by the Government by 31st December, 2005. Government would review the funds utilization position of each Bank in the month of January, 2006. The funds not likely to be utilized by certain Banks would be diverted to those Banks who would need more funds. The funds released by the Government are to be kept in a subsidiary account by the banks and the interest accrued on the funds is to be credited to the Government.

(v) **Inclusion of additional machinery under TUFSS for various segments.**

(a) ***Ginning and pressing:***

(i) The list of ginning and pressing machinery in Annex 'A' of GR on TUFSS has been replaced by list of machinery eligible under Technology Mission on Cotton (TMC). List is given at **Annex-I**.

(b) ***Spinning, weaving and processing machinery:***

(i) It was decided that all the machines which are covered under 10% capital subsidy would be considered as automatically covered under 5% interest reimbursement scheme.

(ii) In order to avail the benefit under TUFSS when the main supplier is not manufacturing small parts / attachments and procured from

other manufacturers, it was decided that accessories could be supplied by other manufacturers directly to the beneficiary instead of routing through the main supplier.

- (iii) The following essential accessories are covered under CLCS@20% -TUFS as under:

Eligible accessories for looms		
(i)	Wire healds	8000 (irrespective of tappet dobbie or jacquard shedding).
(ii)	Frames	6 for tappet and 16 for dobbie.
(iii)	Wooden board with ceramic guide	For jacquard
(iv)	Reeds	2
(v)	Warp beam	2
(vi)	Electrical motor of required H.P.	1
Eligible accessories for Two for one twister (TFOT)		
(i)	Feed package cops	2.2 times the number of spindles
(ii)	Take-up rolls	3 times rolls of number of TFO position

- (c) ***Jute machinery:***

The eligible list of jute machinery which were included / amended in Annex 'G' of GR on TUFS is given at **Annex-II**. This machinery is only eligible for jute sector.

- (d) ***Non-woven / technical textiles:***

It was decided to replace the list of machinery at Annex-D2 (e) to (i) of GR on TUFS as per the list given at **Annex-III**. This machinery is only eligible for non-wovens and converters of non-wovens into finished products.

- (vii) **Inclusion of additional machinery for 10% capital subsidy in addition to 5% interest reimbursement under TUFS for processing sector.**

A consolidated list of processing machinery eligible for 10% capital subsidy in addition to 5% interest reimbursed under TUFS, which is given at **Annex-IV** has replaced the Annex-J of GR on TUFS.

- (viii) **Inclusion of additional machinery for various segments of the textile industry.**

The following machinery has been included in various annexes of GR on TUFS given at **Annex-V**.

- (a) Two chamber stenter for processing of silk fabrics.
- (b) Testing equipments.
- (c) Beam gaiting trolley and warp leasing machine.
- (d) Circular looms for manufacturing of technical textiles.
- (e) 13 machines for silk curtain / made-up items.
- (f) Thermo Pac with all type of fuels / other high temperature heating system subject to pollution control measures by the concerned State Authorities.
- (g) Bio-mass based gassifier.

(ix) **Amendment in the operational guidelines under 15% CLCS-TUFS.**

(a) Para no.9 of Circular No.6(2001-2002 series) dated 19th Feb., 2005 indicating the operational guidelines for 15% CLCS-TUFS has been amended as under:

9. "It is expected that a industrial unit availing of Capital subsidy should atleast function for a minimum period of three years from the date of disbursement of capital subsidy. In case unit goes out of production prior to lock in period of three years (except in cases where the unit remains out of production for short period, not exceeding three months (*six months in case of ginning and pressing factories and not to any other manufacturing activity of the textile industry*) due to causes beyond its control such as shortage of raw material, power etc.), the industrial unit shall be liable to refund to the Government Capital Subsidy availed of along with interest to be charged from the date of disbursal to the date of refund. The rate of interest shall be the prime lending rate of PLI concerned at the time of invoking this penal clause. The bank/FI will take all necessary steps to recover the capital subsidy and interest thereto from the industrial unit and refund the same to the Govt."

(b) In the cases where the term loan have already been disbursed and repayment of term loan has already commenced, the unit can opt for 15% capital subsidy under TUFS if the unit has not availed of any 5% interest reimbursement under TUFS.

(x) **Clarification under 20% CLCS-TUFS.**

Govt. has provided an option to the powerloom units to avail of 20% capital subsidy on front ended basis along with bank finance. Under this option, powerloom unit will approach the lending agency for term loan and bridge finance for 20% capital subsidy with their project proposal. In this connection

it is clarified that the lending agencies can sanction the 20% amount by way of term loan to the unit and recover the same after release of subsidy from Govt.

(xi) **Coverage of energy saving devices.**

The issue regarding energy saving devices was discussed in the 20th meeting of IMSC and it was decided that it would be difficult to cover all the energy saving devices on individual basis, therefore, in case a lending agency has a doubt regarding a device, unit should submit a certificate from Bureau of Energy Efficiency which is under the Ministry of Power certifying that the device is a energy saving device and on the basis of certificate lending agency should cover it under TUFs.

(xii) **Coverage of spares, accessories and attachments under TUFs.**

Accessories / attachments / spares received along with the machinery upto the value of 20% of the machinery cost or actual value, whichever is lower has been covered under TUFs.

(xiii) **Clarification regarding the upper limit for project implementation period under TUFs.**

It is clarified that the upper limit for project implementation period under TUFs is two years from the date of commencement of implementation of the project. The IDBI provides for four years period for implementation and moratorium. The moratorium period can not be more than two years but the implementation period can be increased to more than two years. However, the moratorium period will reduce accordingly as overall limit for implementation period and moratorium period is four years.

2. Co-option of additional banks / financial institutions by Nodal Agencies.

- (i) Industrial Development Bank of India, the nodal agency (NA) for Non-SSI textile sector under Technology Upgradation Fund Scheme, has co-opted ABN Amro Bank N.V. for Non-SSI textile sector under the TUF Scheme.

The above additional / modifications / clarifications in the TUF scheme may please be brought to the notice of all concerned.

(Smt Shashi Singh)
Joint Textile Commissioner

To: -

1. Secretaries (Textiles) of all states
2. All PLIs of IDBI and SIDBI

3. To all Major Textile Industry Associations/ Trade Associations/All India Industry Associations/Chambers of Commerce & Industry.
4. Officer In-charge of all Regional office of the Textile Commissioner,
5. Secretary, Textiles Committee, Mumbai
6. Officer Incharge of all Powerloom Service Centers,
7. The Directors of all TRAs
8. Executive Directors of all EPCs
9. Development Commissioner (Handlooms)
10. Development Commissioner (Handicrafts)
11. Jute Commissioner
12. Member-Secretary, Central Silk Board
13. Director General , NIFT
14. Prominent News Agencies.

with a request to bring the above message to the notice of all concerned, by publishing / covering the above amendments/modifications in the TUFs, in the news papers/ periodicals / magazines etc

Copy for information to:

1. All members of IMSC & TAMC.
2. Shri Sudripto Roy, Joint Secretary, Ministry of Textiles, New Delhi - 11
3. Shri S.A. Baba, Director, Ministry of Textiles, New Delhi – 110 011

(Smt Shashi Singh)
Joint Textile Commissioner

Annex – I**List of the ginning & pressing machinery eligible under TUF Scheme**

Annex – A of GR on TUFs is replaced by the following machinery

Sr. No.	Item	Minimum requirement	
		Large Unit	Small Unit
1.	Ginning machines	24 DRs of normal size/22 extra-long DRs /18 jumbo DRs with Autofeeder/3 saw gins (90 saws) or equivalents with a processing capacity of 6-8 bales per hour.	12 DRs of normal size / 11 extra-long DRs /9 jumbo DRs with Autofeeder/ 1 or 2 saw gins with equivalents processing capacity of 3-4 bales per hour.
2	Precleaner	Cleaner with 4 or more beater cylinders/rolls with capacity to suit the processing speed of the ginning machines.	Cleaner with 4 or more beater cylinders /rolls with capacity to suit the processing speed of the ginning machines.
3	Lint Cleaner	Cleaner with 3 or more beater cylinders/rolls with capacity to suit the processing speed of ginning machines	Cleaner with 3 or more beater cylinders/rolls with capacity to suit the processing speed of ginning machines.
4	Kapas Conveyor System	(i) Pneumatic conveyor with Stone Catcher for the first stage from heaps to Precleaner; (ii) Mechanical/Pneumatic conveyor from Precleaner to individual gins. Central Platform system not permitted unless it exists already.	(i) Pneumatic conveyor with Stone Catcher for the first stage from heaps to Precleaner; (ii) Mechanical/Pneumatic conveyor from Precleaner to individual gins. Central Platform system not permitted unless it exists already.
5	Lint Conveyor System	Mechanical / Pneumatic Conveyor (i) from Gins to Lint cleaner; (ii) from Lint cleaner to each Pala Hall and (iii) from each Pala Hall to a) Bale Press Hall in case of existing conventional Bale Press b) Bale Press box through Line slide and Pusher Mechanism in case of modern Bale Press (direct feeding of cotton from Lint Cleaner to Press box permitted)	Mechanical / Pneumatic Conveyor (i) from Gins to Lint cleaner; (ii) from Lint cleaner to each Pala Hall and (iii) from each Pala Hall to a) Bale Press Hall in case of existing conventional Bale Press b) Bale Press box through Line slide and Pusher Mechanisms in case of modern Bale Press (direct feeding of cotton from Lint Cleaner to Press box permitted)

Sr. No.	Item	Minimum requirement	
		Large Unit	Small Unit
6	Bale Press	Single stage of hydraulic, autotramping Bale Press with Lint slide and Pusher mechanism for direct feeding of lint into the press box,. Conventional water hydraulic, two-stage presses without auto tramping facility will, however, be permitted if they already exist.	Single stage of hydraulic, autotramping Bale Press with Lint slide and Pusher mechanism for direct feeding of lint into the press box,. Conventional water hydraulic, two-stage presses without auto tramping facility will, however, be permitted if they already exist.
7	Conveyor for Seed	Automatic Conveyor from gins to Seed Platform	Automatic Conveyor from gins to Seed Platform
8	Humidifier/ Moisturizer	<p style="text-align: center;"><u>In Gin Hall</u></p> In case of Central Platform, 2 Benson fans or adequate number of nozzles. <p style="text-align: center;"><u>In Pala Halls</u></p> 2 Benson fans in each Hall or adequate number of nozzles.	<p style="text-align: center;"><u>In Gin Hall</u></p> In case of Central Platform, 2 Benson fans or adequate number of nozzles. <p style="text-align: center;"><u>In Pala Halls</u></p> 2 Benson fans in each Hall or adequate number of nozzles.
9.	Fire Fighting System	Overhead tank/sumo (capacity 1.25 lakh litres) with a minimum of 10 hydrants strategically located, hose pipes with nozzles and a standby diesel pump besides an electric pump.	Overhead tank/sumo (capacity 1.25 lakh litres) with a minimum of 10 hydrants strategically located, hose pipes with nozzles and a standby diesel pump besides an electric pump.
10	Underground Wiring	All high tension and low tension wires/cables to be under-ground	All high tension and low tension wires/cables to be under-ground
11	Weigh Bridge	Capacity; 20 tons/5 tons depending on local need (Not required if the facility is available nearby)	Capacity; 20 tons/5 tons depending on local need (Not required if the facility is available nearby)
12	Pucca Platform for kapas	Raised platform (3" CC cover) with a minimum of 10,000 sq.ft. area preferably with 10 ft. wide cemented pavement all around/1 ft. wall around.	Raised platform (3" CC cover) with a minimum of 5,000 sq.ft. area preferably with 10 ft. wide cemented pavement all around/1 ft. wall around.
13	Covered Stroage space for Lint (Pala Halls)	Hall(s) with a minimum area of 4000 sq. ft. , pucca floor and preferably plastered walls.	Hall(s) with a minimum area of 2000 sq. ft. , pucca floor and preferably plastered walls.

Sr. No.	Item	Minimum requirement	
		Large Unit	Small Unit
14	Seed Platform	Raised, cemented (3" CC cover) platform of minimum 2000 sq.ft. area, with 2 ft. high outer wall	Raised, cemented (3" CC cover) platform of minimum 1000 sq.ft. area, with 2 ft. high outer wall
15	Bale Storage Space	Platform with cemented floor adjoining Press Hall and admeasuring a minimum area of 600 sq.ft. preferably with roof	Platform with cemented floor adjoining Press Hall and admeasuring a minimum area of 600 sq.ft. preferably with roof
16	Road	CC Road (4.5" CC cover) with at least 10 ft. width preferably elevated	CC Road (4.5" CC cover) with at least 10 ft. width preferably elevated
17	Boundry Wall/Fence	Wire mesh fence or barbed wire fence with less than 1 ft. gap between wires, or masonry wall, all of a minimum height of 6 ft.	Wire mesh fence or barbed wire fence with less than 1 ft. gap between wires, or masonry wall, all of a minimum height of 6 ft.

18. **Optional machinery**

All foreign fibre detectors / removers.

Annex – II

Following inclusions/ amendments as approved in 27th TAMC held on 28th Oct.,
2005 in Annex –G of GR on TUF S

LIST OF MACHINERY ELIGIBLE UNDER TUF SCHEME FOR JUTE
RAMIE AND HEMP UNITS

- a. **For softening and carding**
14. Semi Automatic Root Cutting M/c.
 15. Hard Waste Card
 16. Breaker-Cum-Finisher Card with or without drawheads, auto-levellers & can changing devices
- b. **For drawing**
3. Flyer twisting frame to be replaced by Comber.
- c. **For spinning & twisting**
10. Flyer twisting
 11. Wet / Semi-wet Spinning Frame
 12. 4 ¾" S.D / A.D Spinning Frame.
 13. Two for one twister
- d. **For weaving preparatory**
5. Auto Coner
 6. Assembly Winder
 7. Beaming / pre-beaming machine
- e. **For weaving etc.**
2. High speed automatic looms to be replaced by High Speed Automatic Shuttleless Looms
 5. Non-woven/Felting machines to be replaced by Non-woven/Felting Plant
 7. Needle/Webbing / Tape Looms
- f. **For finishing**
6. High Pressure Roll Up Machine
 7. Calender M/c
 8. Crisping M/c.
 9. Automatic bag making M/c
- g. **For material handling & other machines (essential).**
6. Jib Crane
 7. EOT (Electrically Operated Track) Crane
 8. Beam lifter

h. Pollution control machines / instruments**Under OTHERS**

7. Dust extractor & blower

i. Processing machines

5. Pad Batch to be replaced by Pad Batch/ Mangle
23. Husk/ Caddis fired boiler
24. Bio-mass based gassifier

j. For testing essential

2. Twist tester to be Deleted "twist tester"
5. Yarn tester to be replaced by Yarn tensile strength tester
6. Fabric tester to be replaced by Fabric strength tester

Annex – III**List of non woven machinery proposed for inclusion under TUFs**

Annex-D2 – e. (Non-Woven-A), f. (Non-Woven-B, Non-Woven-C), g. (Non-Woven (Spunlace/Jetlace)), h. (Testing & Evaluation), i. Other Ancillary Equipment, has been replaced by the list of following Non-woven technical textile machinery.

- e. (i) **Non-woven textile manufacturing machines:**
1. Bale openers
 2. Fibre openers
 3. Porcupine beater/opener with double beater or other similar opener.
 4. Fibre blending/mixing
 5. Feeder hoppers/chute /card feeding unit
 6. Cards
 7. Cross-lappers,
 8. Saturator
 9. Air laying / web laying/web forming machines
 10. Web drafters
 11. Web expanders
 12. Print bonder
 13. Web conveyors
 14. Web control systems - weight/uniformity/alignment
 15. Batt feeders
 16. Pre-needler/tackers
 17. Web edge trimming and re-cycling system
 18. Edge openers
 19. Accumulator
 20. Stackers
 21. Unwinders/winders/slitters/slitter-cum-winder/stackers
 22. Compression rolls
 23. Heated calender
 24. Chilled calender
 25. Chiller
 26. Stenter
 27. Blow room equipment
 28. Winding and cutting machine
 29. All types of needle looms

30. Stich bonding machine with necessary attachments
 31. Chemically bonded non-wovens.
 32. Auto foam generator
 33. Binder mixing tanks
 34. Binder applicators of all types print dip knife etc
 35. Drying and curing machines – steam/electric/oil/gas heated
 36. 30" stainless steel drying cylinders range with first 5 to 6 cylinders teflon coated.
 37. Spray booths with spray guns
 38. Powder applicator
 39. Curing oven-steam/electric/oil/gas heated
 40. Thermal bond calender
 41. Thermopack for heating of calender
 42. Hot air oven
 43. Thermopack for heating oil
- (ii) Spunlace non-woven plant includes:
1. Hydro entanglement unit
 2. Suction unit
 3. Engraving unit
 4. Dryer, on line printing unit.
 5. Heating system
 6. Water filter system
 7. Boiler for thermic fluid/oil
 8. High pressure pumps
 9. Jet stripe cleaning equipment
 10. Jet beams
 11. Finishing seive belt with vacuum – beam
 12. Winder with slitter
- (iii) **Spunbond non-woven machines includes:**
1. Chip feeder
 2. Dryer
 3. Extruder
 4. Spinnerettes
 5. Cooling champer
 6. Filament laying
 7. Compressor rolls

(iv) **Complete melt blown line includes:**

1. Pellet handling system
2. Screenchanger
3. Meltblown die
4. Lamination stand

f. **Finishing machines:**

1. Hot melt cold glue applicators for coating
2. Ultrasonic slitting machines/edge sealer
3. Brazing machine with torch(for hot air)
4. PLC operated system with servo drives for measurement/control of tension and temperature
5. Stitching machines of all types
6. Film calendering machine
7. Automatic packing and inspection machines
8. Heatset oven with stenter facility
9. Clicking press
10. Pilot/lab coating line
11. High pressure pump for water jet cutting system
12. Robotic waterjet cutting system
13. Robot for water jet cutting system
14. Water softening/purification system for water jet cutting
15. Machines for powder scattering/paste dot/powder dot
16. Coating for fusible interlinings
17. Padding mangle (fulard)]
18. Extruder lamination machine
19. Sheet extruders and lamination machine
20. Singeing machine
21. Clip/pin stenter for heat setting
22. Flame lamination machine
23. Humidifier
24. Air conditioning units
25. Dust collectors
26. Jacquard machines for joining two edges by inter weaving.
27. Turret winder and unwinder
28. High speed precision mixers for plastisols/ organosols.

29. Coagulated PU dip coating machine/PU coating line or coating dipping/knife machine with infra red dryer (eligibility is restricted to technical textile only).
30. Gunning and cutting machine.
31. Grommet fixing machine.
32. Back coating lines.
33. PU tumbling machine and drying machine.
34. DMF recovery plant and distillation plant.
35. Printing machine for coated textiles.

g. Conversion machinery:

1. Complete thermomoulding lines
2. Complete thermosetting lines
3. Machinery of carpet/NVH moulding lines oven/press
4. Conveyor/thermopack for heating/chiller for cooling
5. Machinery for moulded roofliners
6. Die cutting presses
7. Machinery for conversion of nonwovens into masks/caps
8. Machinery for conversion of nonwovens into sanitary
9. Napkins/baby diapers/masks/adult diapers
10. Machinery for conversion of nonwovens into dry and wet wipes
11. Automatic packing machines

Note : The above machinery is only eligible for non-wovens and converters of non-wovens into finished products.

h. Testing and Evaluation machinery:

1. Speciality testing equipments and rigs for T.T. (Technical Textiles) and T.T.P. (Technical Textile Products)
2. Universal texsile testing machine 10 tonnes/20 tonnes
3. Index puncture resistance tester
4. Co-efficient of friction apparatus
5. Particle size determination apparatus
6. Gradient ratio test apparatus
7. Long time flow apparatus
8. Feltperm
9. Ppont paper design system with ewe
10. Weatherometer
11. Yarn shrinkage and shrinkage force testing machine
12. Viscometers

13. Data loggers for machine monitoring and flex resistance tester
 14. Tear testing machine
 15. Cold crack resistance testing
 16. Thickness gauge
 17. Water repellency testing machine
 18. Waterproofing testing machine
 19. Fire resistance testing equipments
 20. Accelerated ageing testing oven
 21. Rainwater tests equipment continuous water spray test and i.r. spectrometer etc.
 22. All types of weighing balances/scales
 23. Abrasion testers
 24. Colour matching cabinets
 25. Colour fastness testers
- i. **Other ancillary equipments:**
1. Air compressor
 2. Boiler
 3. Platform scale
 4. Stirrer
 5. Humidifier
 6. Air conditioning units for control panels etc

Annex- IV**List of processing machinery eligible
under TUF Scheme for 10% capital subsidy (Revised Annex-J of GR on TUFs)**

1. Singeing machine with auto mixing of air & fuel for temperature and flame control.
2. Process and dye kitchen management system for the whole process house.
3. Computer colour matching.
4. Computer controlled fabric inspection machine with fault analyzer and report generator.
5. Automatic roll folding and packing machine.
6. Relax / Tumble / Radio frequency / Microwave dryer / Hot air / Infrared / Radiant gas fired / Loop dryers.
7. Compacting machine.
8. Knit tubular mercerizing / bleaching cum mercerizing machine.
9. Knit fabric continuous bleaching plant
10. Rotary screen printing machine with magnetic / air flow squeegee system, on-line washing arrangement, quick change over facility, automatic design setting.
11. Ink jet printing machine.
12. Loop ager / Flash ager
13. Washing range with arrangement of tension free fabric drying and reduced water consumption/water reuse system
14. Multi chamber stenter (minimum 4 chambers) with arrangement of oil / gas heating
15. Coating / Laminating / Embossing / Pinching machine.
16. Yarn / fabric mercerizing machine with/without Caustic Recovery Unit (without caustic recovery unit if unit already has it).
17. Open-width continuous scouring and bleaching range with microprocessor attachments and automatic chemical dosing
18. Open width Pad-dry and / or Pad-Steam continuous dyeing range with micro processor based energy control and water monitoring with / without thermosol.
19. Indigo dyeing range
20. Digital / laser / len engraving / screen making system for rotary screens.
21. Continuous weight reduction machine through micro wave technique (for Polyester goods only)
22. Machine for softening and stone wash effect on fabric / garments.
23. Compressive Shrinking range.
24. Sueding / peach finishing / brushing / raising / decatizing / contipress / polishing shearing / pile cutting machine.
25. Fully automatic zigger with microprocessor controller

26. Effluent Treatment Plant (ETP) upto secondary and/or tertiary treatment facilities including Reverse Osmosis, Nano Filtration, Multiple effect stage Evaporators / Mechanical Evaporator.
27. Water softening plant.
28. Soft Flow Dyeing Machine
29. Automatic Flat Bed Screen-Printing Machine.
30. Automatic Flat Bed Garment printing Machine.
31. Automatic Dye Weighing and Dispensing System.
32. Fibre / Yarn Dyeing machines (package / cabinet type).
33. Curing / Polymerizing Machine.
34. Jet Dyeing Machine (Low liquor ratio 1:3.5 to 7).
35. Airo Machine (for durable mechanical finishes).
36. Ammonia finishing machine for fabrics including ammonia recovery plant.
37. Rope opening line with open width squeeze mangle.
38. Weft Straightner with electronic controls.
39. Wet fabric spreading & squeezing Machine.
40. Calendering Machine (7 bowls)
41. Fully Automatic Jigger with Microprocessor Control.
42. Foam Finishing Machine.
43. High speed micro-inkjet Engraver with UV exposing unit
44. Flock cutting / printing machine
45. Thermosoling range
46. Transfer printing machine
47. Fabric reversing machine
48. Slit opening machine
49. Milling machine
50. Kier decatizing / Continuous decatizing machine
51. Plasma Treatment machines
52. Solvent Scouring machines
53. Contifit / Super finish machine with micro processor controller.
54. Fabric Shearing machine.
55. Continuous Pressing & Chemical Setting machine.
56. Paper / Rotary Press machines.

Processing house for yarn/fabrics/garments/made-ups including wool, polyester / wool blends, knits, jute, independent fibre/yarn dyeing unit or fibre/yarn dyeing facility attached to spinning unit are eligible to avail the benefit.

Amendments / Additions in Annexes in TUF S

1. **Annex – B - List of machinery eligible for spinning / silk reeling and twisting / wool scouring and combing/synthetic filament yarn texturising crimping and twisting under TUF Scheme.**
 - f (19) Two Chamber stenter for processing of silk fabrics

2. **Annex – C – List of machinery eligible under TUF Scheme for viscose filament yarn manufacturing.**
 - (a).18 (iv) Spinnerettes Inspection microscope
 - (a).18 (v) Magnetic flow meter in VRR
 - (a).18 (vi) Online monitoring of soft water hardness
 - (a).18 (vii) Portable colour matching system
 - (a).18 (viii) Winder machine for uniform shade strips
 - (a).18 (ix) Auto Titrator for precise volumetric analysis
 - (a).18 (x) Portable density meter

3. **Annex – D-1 - List of machinery eligible for weaving/knitting units under TUF Scheme.**
 - (a).21 Beam Gatiting Trolley
 - (a).22 Warp Leasing machine
 - (b) (3B)(iv) Circular looms

4. **Annex – E - List of machinery eligible under TUF Scheme for RMG/made-ups units.**
 73. Automatic combines panel-joining / tape attaching machine for curtains.
 74. Electronic, pre-programmed, straight line lockstitch curtainpleat tacker with fully automatic curtainhook feeding device
 75. Automatic Combined Panel-joining & Hemming Machine
 76. Automatic Lockstitch Curtain Hemming Machine
 77. Fully Automatic Combined Thread Chainstitch Ring attach/pinch pleat tacking M/c.
 78. Hydraulic combined cutting/pressing machine for processing metal curtain rings

79. Pneumatic single
80. Fully automatic fabric inspect, measure and length cutting machine.
81. Fully Automatic, Programmable, Electronic vertical curtain cutting machine
82. Electronic, pre-programmed, straight line lockstitch curtainpleat tacker with fully automatic curtainhook feeding device
83. Fully Automatic drapery pinch pleater with integrated Microflex (r) adjustable curtain hook feeder.
84. Curtain feeding device for fully automatic pinch pleater.
85. High performance motor driven curtain ironing table.

5. **Annex – F-1 - List of processing machinery eligible under TUF Scheme for process house for yarn / fabric / garments / made-ups (other than wool & polyester/ wool blends & knits).**

- (b) (IV) (2) Thermo Pac with all type of fuels / other high temperature heating system subject to pollution control measures by the concerned State Authorities.
- (b) (IV) (15) Bio-mass based gassifier

6. **Annex – F-2 - List of processing machinery eligible under TUF Scheme for a knit process house (fabric /garments/made ups).**

- (b) (IV) (2) Thermo Pac with all type of fuels / other high temperature heating system subject to pollution control measures by the concerned State Authorities.
- (b) (IV) (10) Bio-mass based gassifier

7. **Annex – F-3 - List of processing machinery eligible under TUF Scheme for a process house for wool & wool polyester blended fibres/yarn/fabric/garment.**

- (b) (IV) (2) Thermo Pac with all type of fuels / other high temperature heating system subject to pollution control measures by the concerned State Authorities.
- (b) (IV) (6) Bio-mass based gassifier

8. **Annex – G - List of machinery eligible under TUF Scheme for jute ramie and hemp units.**

- (i)(21). Thermo Pac with all type of fuels / other high temperature heating system subject to pollution control measures by the concerned State Authorities.
- (i)(24). Bio-mass based gassifier.

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