

CREEL

1. **Type:**
Stationary, Side to Side, Side to Side and Front to Back, Rotating
2. **Number of beams:**
8, 12, 16, 20, 24, 28, 32
3. **Beam widths:**
1,800, 2,000, 2,200, 2,400mm
4. **Brakes:**
Pneumatic band (5 to 20kg. per beam)
5. **Tension control:**
by load cell (\pm 1.0 GPE)
6. **Beam flange diameter:**
1,000, 1,100, 1,250mm
7. **Beam type:**
Euro gear or journal type

SIZE BOX

8. **Number of size boxes::**
1 or 2 Vertical Exit DDDS
9. **Working width:**
1,800, 2,000, 2,200, 2,400mm
10. **Draw Roll Assy. (tension controlled):**
Motor driven
11. **#1 Squeeze roll rubber covered:**
2) rolls with anodized matt finish
12. **Size Rock driven roll:**
230mm \varnothing working width + 200mm
13. **#2 Squeeze roll rubber covered:**
230mm \varnothing uni-squeeze x working width + 200mm
14. **Squeeze roll rubber coverings:**
65 durometer
15. **#1 Squeeze roll loading:**
0-20kN
16. **#2 Squeeze roll loading:**
0-40kN

GENERAL SPECIFICATIONS: GSSM-100-D SIZING MACHINE (DENIM)

17. **Seal-less pan design:**
Roll journals are above the size level which eliminate the need for shaft seals
18. **Sheet exit:**
Single or wet-split
19. **Tension control:**
by load cell rolls (\pm 1.0 GPE)
20. **Stretch:**
Monitored to within 0.01% stretch
21. **Pan capacity (Teflon coated):**
180, 200, 220, 240 liters
22. **Filtration:**
Screen type
23. **Size temperature control:**
RTD/on-off steam valve
24. **Size heating:**
direct steam heating
25. **Size level control:**
by Over-flow weir
26. **Size add-on:**
by continuous calculation from size consumption and speed/yarn throughput, size add-on control using PLEVA (optional)
27. **Storage kettle:**
Closed steam coil, 1,200, 1,500, 2,000 liter
28. **Cooking kettle:**
Open steam coil, 1,000 liter
29. **Kettle pumps:**
From cooker to storage and storage to sizer
30. **Controls**
Temperature control for each kettle

DRYING SECTION

- 31. **Dry Cylinder specifications:**
800mmØ x working width + 200mm
- 32. **Working steam pressure:**
5 Bar
- 33. **Temperature control:**
RTD, controlled in 2-can groups
- 34. **Drying section drive system:**
Tension controlled by load cell (± 1.0 GPE)
- 35. **Stretch:**
Monitored (within 0.01% stretch)
- 36. **Drive type:**
Self-lub chain (final stack only)
- 37. **Over-oiler/waxer:**
Steam heated
- 38. **Hood:**
Buyer to arrange hood locally as per UKIL design
- 39. **Exhaust fans:**
16,000m³/hr. per fan

HEAD END

- 40. **Winding head type:**
Conventional
- 41. **Loom beam width:**
2,200mm to 5,400mm
- 42. **Loom beam diameter:**
1,000mm, 1,100mm, 1,250mm, 1,400mm
- 43. **Maximum mechanical speed:**
150 MPM
- 44. **Maximum winding tension:**
900 Kg
- 45. **Tension control:**
by load cell (± 1.0 GPE)
- 46. **Stretch**
Monitored (within 0.01 stretch)
- 47. **Delivery roll (urethane covered):**
260mm Ø working width + 200mm
- 48. **Nip roll/load cell roll:**
160mm Ø working width + 200mm

- 49. **Doffing:**
Hydraulic operation 3,200kg max. capacity
- 50. **Dual Press Roll Assembly:**
pneumatically controlled 100kg - 600kg
- 51. **Comb:**
Zig Zag, motorized movement
- 52. **Taping device**
Motorized movement
- 53. **Final moisture (full width of sheet):**
Resistive rod sensor

DRIVE AND CONTROL SYSTEM

- 54. **Human Machine Interface (HMI):**
480mm color touchscreen utilizing MS Visual Basic
- 55. **PC based:**
2Gb Compact Flash card stores all programs/style information, reliable diskless technology
- 56. **Maximum ambient operating temp:**
50° C, AC unit is required for higher temperatures
- 57. **Operating system (embedded):**
Microsoft Windows 7 with real time extension
- 58. **Control software:**
IEC 61131-3 compliant
- 59. **Style recipe storage:**
Up to 999 styles
- 60. **Communication:**
High speed Ethercat to drives and I/O
- 61. **Drives:**
Yaskawa A1000 AC Vector/Servo
- 62. **I/O:**
Beckhoff Ethercat distributed I/O with direct strain gauge interface, RTD, current, voltage, relay, etc. mounted close to the device for easy installation and troubleshooting
- 63. **Motors:**
SEW with encoder feedback for speed control
- 64. **Control cabinets:**
3C labeling on all wiring