CV Norms of "FABRICATION OF OUTER JACKET & REVERSIBLE INNER JACKET (WITH A PACKING POUCH) WITH ALL GARNITURE MATERIAL OF COAT COMBAT (DIGITAL) CAMOUFLAGE PRINT NYLON 6,6

"Under the subject fabrication work, the firm has to manufactured component (i) Outer Jacket and (ii) Reversible Inner Jacket which may be attached/detached to Outer Jacket (with a packing pouch) strictly as per the Prov. Specification No. **"PROV/IND/TC/4987 With Amendment No.-1" AND as per scope of work Annexure A-2."**

ITEM/JOB WORK	MANUFACTURING PLANT & MACHINERY		TEST EQUIPMENT	
	ESSENTIAL	DESIRABLE	ESSENTIAL	DESIRABLE
Fabrication of Coat Combat Digital Print with arrangement of all garniture items as per **scope of work Annexure A-2**	1. Single Needle Lock Stitch Sewing Machine-200 nos. minimum 2. Arrangement for Metallic Snap Fastener Fixation 3. Cutting arrangement/equipment for cutting of mesh fabric, Tapes, hook & loop fasteners, crepe elastic. 4. The firm must possess all the essential manufacturing & testing facilities of garniture (as per Specification No. "PROV/IND/TC/4987 With Amendment No.-1) as per the attached CV Norms:- a. Injection molded Plastic slide fasteners (Appendix 1) (02 Pages) b. Metallic slide fasteners (Appendix 2) (02 Pages) c. Zipper Coil slide fasteners (Appendix 3) (02 Pages) d. CFC polyester PU coated (Waterproof) slide fasteners (Appendix 4) (02 Pages) OR The firm must have notarized agreement/tie up up with the firm(s) who must possess all the essential manufacturing & testing facilities of slide fasteners (as per Specification No. "PROV/IND/TC/4987 With Amendment No.-1) as per the attached CV Norms:- a. Injection molded Plastic slide fasteners(Appendix 1) (02 Pages) b. Metallic slide fasteners (Appendix 2) (02 Pages) c. Zipper Coil slide fasteners (Appendix 3) (02 Pages) d. CFC polyester PU coated (Waterproof) slide fasteners (Appendix 4) (02 Pages) **Note:-Physical Capacity Verification of the vendor alongwith notarized agreement/tie up firms (wherever applicable) will be carried**.	---	Measuring Tape	---

Encl.- As above

Appendix- 1

CV Norms for Slide Fasteners various Injection Molded Zippers, Prov Specification NO. PROV/IND/TC/4987 and Amendment No.1

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ITEM	END USE	MANUFACTURING PLANT & MACHINERY		TEST EQUIPMENTS	
		ESSENTIAL	DESIRABLE	ESSENTIAL	DESIRABLE
Slide Fasteners (Injection Molded)	Coat Combat Digital Print	• Hi-speed Needle Loom • Heat Setting Machine/calendering Machine • High Temperature, High Pressure, Dyeing Machine • Washing & Drying Machine		Chain Cross wise Strength Tester Test Method – JIS-S-3015 Zipper Reciprocating Tester for Durability - JIS-3015, BS-3084 Opening & Closing Force Tester Test Method – JIS-3015, ASTM-D- 2061	• Colour fast to perspiration • C.F. to light • Or suitable arrangement with NABL Lab for testing of this parameter • C.F to sea water • C.F. to washing • Col test to organic solvents
		• Injection Molding Machine for teeth making • Slider & puller assembly attachment Machine • Pin & Box attaching Machine • Top Stop attaching Machine • Gapping Machine • 'T' cutting machine		Top Stop Holding Strength Tester Test Method – JIS-3015, ASTM-D- 2062 Slider Lock Strength Tester Test Method – JIS-S-3015	
		• Die Casting Machine/pressing machine • Slider, puller & lock-pin assembly Machine • Ultrasonic Film adhesive Machine		Slider Pull Strength Tester Test Method – ASTM-D- 2061 Element Pull-Off Strength Tester ASTM-D-2061 Slider Puller Twist Strength Tester Test Method ASTM-D- 2061	

				Element Slippage Strength Tester Test Method ASTM-D- 2061 Bottom Stop Holding Strength Tester Test Method – JIS-S-3015 Film adhesion Strength Tester Test Method – JIS-K-6854 Separable Pin Insertion Force Tester Test Method ASTM-D- 2061	

Note - Physical CV will be done and firm has to demonstrate the manufacturing of the subject item.

Appendix- 2

CV Norms for Slide Fasteners various Metallic Zippers, Prov Specification NO. PROV/IND/TC/4987 and Amendment No.1

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ITEM	END USE	MANUFACTURING PLANT & MACHINERY		TEST EQUIPMENTS	
		ESSENTIAL	DESIRABLE	ESSENTIAL	DESIRABLE
Slide Fasteners (Metallic)	Coat Combat Digital Print	• Hi-speed Needle Loom • Heat Setting Machine/calendering Machine • High Temperature, High Pressure, Dyeing Machine		Chain Cross wise Strength Tester Test Method – JIS-S-3015 Zipper Reciprocating Tester for Durability - JIS-3015, BS-3084 Opening & Closing Force Tester Test Method – JIS-3015, ASTM-D- 2061	• Colour fast to perspiration • C.F. to light • Or suitable arrangement with NABL Lab for testing of this parameter • C.F to sea water • C.F. to washing • Col test to organic solvents
		• Wire Forming Machine • Teeth attachment machine • Slider & puller assembly attachment Machine • Pin & Box fixing Machine • Top Stop Fixing Machine • Cutting Machine • Washing & Drying Machine • Surface finishing Machine • Electro-plating/Coating Machine		Top Stop Holding Strength Tester Test Method – JIS-3015, ASTM-D- 2062 Slider Lock Strength Tester Test Method – JIS-S-3015	
		• Die Casting Machine/pressing machine • Slider, puller & lock-pin assembly Machine • Ultrasonic Film adhesive Machine		Slider Pull Strength Tester Test Method – ASTM-D- 2061 Element Pull-Off Strength Tester ASTM-D-2061	

				Slider Puller Twist Strength Tester Test Method ASTM-D- 2061 Element Slippage Strength Tester Test Method ASTM-D- 2061 Bottom Stop Holding Strength Tester Test Method – JIS-S-3015 Film adhesion Strength Tester Test Method – JIS-K-6854 Separable Pin Insertion Force Tester Test Method ASTM-D- 2061	

Note - Physical CV will be done and firm has to demonstrate the manufacturing of the subject item.

Appendix- 3

CV Norms for Slide Fasteners various Coil type Zippers, Prov Specification NO. PROV/IND/TC/4987 and Amendment No.1

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ITEM	END USE	MANUFACTURING PLANT & MACHINERY		TEST EQUIPMENTS	
		ESSENTIAL	DESIRABLE	ESSENTIAL	DESIRABLE
Slide Fasteners (coil type)	Coat Combat Digital Print	• Hi-speed Needle Loom • Coil Forming Machine • Protective tape & coil stitching Machine • Heat Setting Machine/calendering Machine • High Temperature, High Pressure, Dyeing Machine • Washing & Drying Machine		Chain Cross wise Strength Tester Test Method – JIS-S-3015 Zipper Reciprocating Tester for Durability - JIS-3015, BS-3084 Opening & Closing Force Tester Test Method – JIS-3015, ASTM-D- 2061	• Colour fast to perspiration • C.F. to light • Or suitable arrangement with NABL Lab for testing of this parameter • C.F to sea water • C.F. to washing • Col test to organic solvents
		• Slider & puller assembly attachment Machine • Pin & Box attaching Machine/Bottom Stop attaching Machine • Top Stop attaching Machine • Gapping Machine • 'T' cutting machine		Top Stop Holding Strength Tester Test Method – JIS-3015, ASTM-D- 2062 Slider Lock Strength Tester Test Method – JIS-S-3015	
		• Die Casting Machine/pressing machine • Slider, puller & lock-pin assembly Machine • Ultrasonic Film adhesive Machine		Slider Pull Strength Tester Test Method – ASTM-D- 2061 Element Pull-Off Strength Tester ASTM-D-2061 Slider Puller Twist Strength Tester Test Method ASTM-D- 2061 Element Slippage Strength	

				Tester Test Method ASTM-D- 2061 Bottom Stop Holding Strength Tester Test Method – JIS-S-3015 Film adhesion Strength Tester Test Method – JIS-K-6854 Separable Pin Insertion Force Tester Test Method ASTM-D- 2061	

Note - Physical CV will be done and firm has to demonstrate the manufacturing of the subject item

Appendix- 4

CV Norms for Slide Fasteners various CFC Polyester PU laminated Coil type Zippers, Prov Specification NO. PROV/IND/TC/4987 and Amendment No.1

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ITEM	END USE	MANUFACTURING PLANT & MACHINERY		TEST EQUIPMENTS	
		ESSENTIAL	DESIRABLE	ESSENTIAL	DESIRABLE
Slide Fasteners (CFC Polyester PU laminated coil type)	Coat Combat Digital Print	• Hi-speed Needle Loom • Coil Forming Machine • Protective tape & coil stitching Machine • Heat Setting Machine/calendering Machine • High Temperature, High Pressure, Dyeing Machine • Washing & Drying Machine • PU Film lamination Machine		Chain Cross wise Strength Tester Test Method – JIS-S-3015 Zipper Reciprocating Tester for Durability - JIS-3015, BS-3084 Opening & Closing Force Tester Test Method – JIS-3015, ASTM-D- 2061	• Colour fast to perspiration • C.F. to light • Or suitable arrangement with NABL Lab for testing of this parameter • C.F to sea water • C.F. to washing • Col test to organic solvents
		• Slider & puller assembly attachment Machine • Pin & Box attaching Machine/Bottom Stop attaching Machine • Top Stop attaching Machine • Gapping Machine • 'T' cutting machine		Top Stop Holding Strength Tester Test Method – JIS-3015, ASTM-D- 2062 Slider Lock Strength Tester Test Method – JIS-S-3015	
		• Die Casting Machine/pressing machine • Slider, puller & lock-pin assembly Machine • Ultrasonic Film adhesive Machine		Slider Pull Strength Tester Test Method – ASTM-D- 2061 Element Pull-Off Strength Tester ASTM-D-2061 Slider Puller Twist Strength Tester Test Method ASTM-D- 2061	

				Element Slippage Strength Tester Test Method ASTM-D- 2061 Bottom Stop Holding Strength Tester Test Method – JIS-S-3015 Film adhesion Strength Tester Test Method – JIS-K-6854 Separable Pin Insertion Force Tester Test Method ASTM-D- 2061	

Note - Physical CV will be done and firm has to demonstrate the manufacturing of the subject item.