



ASSISTIVE PRODUCT SPECIFICATION FOR PROCUREMENT

Braille writing equipment

Objective:

The objective of this specification is to help organizations in procuring good quality braille writing equipment that are durable and which assist the individuals with communicating in braille.

World Health Organization

1. Product description

The purpose of this section is to provide specific key details relevant to the assistive product so that it is easily identifiable.	
Purpose of 1.1	Name of product as per WHO priority APL and/or commonly used names.
1.1 Name of product	Braille Writing Equipment, hereinafter referred to as “The Equipment”.
Purpose of 1.2	As per ISO 9999 classification and terminology document (refer https://www.iso.org/standard/60547.html).
1.2 ISO 9999 code	22 12 12 Manual Braille writing equipment Devices for producing embossed Braille characters on paper with a special stylus or a stick
Purpose of 1.3	Describes the product type in clear, simple, easily understood language and the intended use in addressing functional needs.
1.3 Description and intended use	This equipment consists of several manually operated devices (slates/frames having Braille cells) for producing embossed Braille characters on paper with a special tip object called Stylus.
Purpose of 1.4	Refers to general characteristics of the assistive product that describes its appearance and components.
1.4 General features	Metal/plastic Frame (with two plates hinged together on top/side) for holding paper for writing Braille Frame to have up to 30 cells across with up to 27 lines Extremely light weight Easy opening / closing for holding the paper in place Up to A4 size Braille Sheet can be used for writing Braille Stylus, typically about two inches long, with a metal tip and having a small handle that can be firmly and comfortably gripped by the index finger and thumb, for punching embossing) the dot into the page
Purpose of 1.5	Refers to product models that are included in the specific APS.
1.5 Inclusion	Includes Stylus with several devices such as: Interpoint Braille Writing Frame Interline Braille Writing Frame A metallic Guide of two lines (up to 30 cells per line) with a wooden board having up to nine holes for fitting the Guide Small Pocket Frames with up to 8 to 10 lines and up to 20 cells in each line
Purpose of 1.6	Refers to product models that are excluded in the specific APS.
1.6 Exclusion	Excludes all electric/electronic/digital Braille writing devices
Purpose of 1.7	Important, searchable words that relate to the specific assistive product.
1.7 Keywords	Braille Writing, Slate/Frame, Stylus

2. Product requirements

The purpose of this section is to provide details of all applicable requirements relative to the specific assistive product. A requirement is mandatory and typically describes what a product should be able to do, how it should appear (product and packaging) etc. Only supply and service requirements considered applicable in procurement of braille writing equipment.

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2.1 Functional requirements

Purpose of 2.1		A functional requirement refers to technical details and other specific functionality that define what a product variation is supposed to accomplish. Per product variation, the requirement should describe the typical user, specific characteristics of the product (in addition to the general features above) as well as the requirements for standard configuration of the product. It is important to focus on performance requirements rather than form factors. It is important to have a clear and specific description of the typical users including e.g. health condition, functional limitation or demographics (range of age, body weight, height, etc). If applicable, specific context of use (e.g. indoor/outdoor, in noisy environment, etc) should be specified in the product variations.		
Item	Product variations	Typical user	Specific characteristics	Requirements for standard configuration
1	Braille Slate/Frame with a wooden board A4 Size with grouse/marker	Visually Impaired	Metal Guide and wooden board	30 cells x 27 lines; Grouse/marker after every 5 cells.
2	Interline Braille Slate/Frame	Visually Impaired	Capacity to emboss Braille on both sides of paper, one line between two lines	30 cells x 27 lines; Grouse/marker after every 5 cells.
3	Interpoint Braille Slate/Frame	Visually Impaired	In interpoint Braille Slate/Frame, paper is embossed on both sides, with the dots on one side appearing between the dots that form the dots on the other.	Up to 30 cells up to x 27 lines; Grouse/marker after every 5 cells.
4	Pocket Frames	Visually Impaired	Much smaller in size and extremely portable	Up to 8 to 10 lines with up to 20 cells per line.
Purpose of 2.2		Brief and clear description of general product performance requirements and overall qualities (e.g. stability, strength, durability, waterproof, etc).		

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2.2 General design requirements	<p>The dots of each cell must be easily discernible by touch and the height of the dots must be sufficient to be easily distinguished from the background. Light weight, easy to handle, extremely low cost, self-locking for holding paper.</p> <p>The Equipment should conform to standards for the size and spacing of Braille embossed on paper, as per the values put forth in Specification 800, "Braille Books and Pamphlets," (February 2008) from the National Library Service for the Blind and Physically Handicapped of the Library of Congress. Details below:</p> <p>Nominal height of Braille dots: 0.019 inches [0.48 mm] to be uniform within any given transcription.</p> <p>Nominal base diameter of Braille dots: 0.057 inches [1.44 mm].</p> <p>Cell spacing of dots:</p> <p>Nominal distance from centre to centre of adjacent dots (horizontally or vertically, but not diagonally) in the same cell would be 0.092 inches [2.340 mm];</p> <p>Nominal distance from centre to centre of corresponding dots in adjacent cells shall be 0.245 inches [6.2 mm];</p> <p>Nominal line spacing of Braille cells from centre to centre of nearest corresponding dots in adjacent lines should be 0.400 inches [1.000 cm].</p>
Purpose of 2.3	Details of existing or in-progress national or international standards should be provided here, whether freely or commercially available.
2.3 Standards	<p>The equipment must comply with and be tested according to relevant national or international standards. Tests to be carried out by accredited test laboratories.</p> <p>If the equipment does not comply with or are not tested according to relevant national or international standards, an explanation must be provided. Documents supporting that braille writing equipment are safe and effective for use by the typical user, including detailed reports of tests performed, must also be provided. If braille writing equipment do not comply with national or international standards, the supplier is liable for any damages or injuries caused by a product that is used according to its purpose by the typical user as stated above.</p> <p>All product documentation must be provided in English and local languages.</p>
Purpose of 2.4	A certificate of conformity confirms that a product conforms to applicable national and/or international regulations. If a certificate is required for the specific assistive product, this information should be requested, e.g., CE (Europe), COC (Japan), GCC (USA).
2.4 Certificate of conformity	The supplier must provide a certificate to the effect that the Equipment conforms fully to the features indicated at 1.4 above and standards mentioned at 2.3 above in this call for tender and is safe and effective for use by the typical user. The certificate must specify the Equipment, all applied standards and the name and contact information of the supplier and be provided with the tender. The certificate of conformity is a legal document and must be signed by an authorized person on behalf of the supplier. The certificate must be supplied in English or in the language of the concerned country.
Purpose of 2.5	Lists the relevant scope of information required to identify the appropriate size and weight of the assistive product in its standard configuration (specific dimensions may be given if appropriate).

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2.5 Size and weight	Varying sizes and weights; (A4 Size).
Purpose of 2.6	Lists the relevant scope of information that should be provided to service providers (e.g. how to select, assemble, fit, adapt, follow up, maintain, repair, refurbish the assistive product). The desired language(s) in which the technical information should be provided should be stated.
2.6 Technical information (for service providers)	<p>Information should be provided to service providers about how to select, assemble, fit, and adapt the assistive product. Instructions on how to follow up, such as maintain, repair and refurbish the assistive product should be provided.</p> <p>The technical information should be provided in the official language or in English (other languages could be specified too).</p>
Purpose of 2.7	Lists the scope of information, and its format, that should be provided to end-users to show how to safely use the assistive product.
2.7 Instructions for use	User manual in both print and in Braille must be provided with the Equipment.
Purpose of 2.8	Refers to the various weather and other environmental conditions, e.g., temperatures, humidity, rain, snow, sunshine, that the assistive product should be able to withstand.
2.8 Environment of use	Equipment should withstand all normal weather conditions including range of temperatures and relative humidity.
Purpose of 2.9	Refers to the duration of the warranty period and the details of the warranty the manufacturer/supplier should provide within the specified period.
2.9 Warranty	Provided normal heedful use, the manufacturer/supplier must, during the warranty period, and without extra expense, repair parts which break on the assistive product. This includes all spare parts and labour, except for normal wear and tear of the product. Specify the duration and details of the warranty as it applies to the assistive product.
Purpose of 2.10	Refers to the expected duration, in years, of the assistive product. Documents describing how this is ensured must be provided.
2.10 Lifespan	The braille writing equipment expected lifespan, in years, must be stated by the supplier, given the typical usage. Documents describing how this is ensured must be provided.
Purpose of 2.11	Lists the scope of information required in packaging and labeling the assistive product. Explains the state of assembly the assistive product should be in when received by the end-user.
2.11 Packaging, labelling, and state of assembly	Must be packed in a sturdy carton box with packing inserts. The carton box should carry a label clearly indicating: "Equipment for the blind, should be handled with care during transit".
Purpose of 2.12	Refers to additional product requirements, depending on the specific assistive product, e.g., material, corrosion-resistance, adjustability, foldability, etc.
2.12 Other product requirements	<p>In the tender, the supplier must provide the following information about the Equipment:</p> <ul style="list-style-type: none"> • Cost (all inclusive) • Full contact details of the supplier, including phone and e-mail

3. Supply and service requirements

From the information provided below, only those supply and service requirements considered applicable may be used in a procurement bid.

The purpose of this section is to describe key supply and service requirements that are needed in order to ensure that the assistive product is received in due time, operational, being maintained/repaired and refurbished.

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Purpose of 3.1	Lists the scope of information to be requested on how the assistive product will be transported to the place of delivery.
3.1 Transportation	Information on how the Equipment will be transported must be provided and who should pay for the transportation.
Purpose of 3.2	Specifies the time between placing an order and receiving delivery of the assistive product (e.g. that it should not exceed 30 calendar days).
3.2 Delivery time	The time between placing the order for the Equipment and its delivery must be about 30 calendar days.
Purpose of 3.3	Refers to the specific details of the various accessories and spare parts available for the assistive product, including pricing and availability.
3.3 Accessories and spare parts	The following accessories should accompany the Equipment: <ul style="list-style-type: none"> • A case with pocket to keep the Stylus.
Purpose of 3.4	Provides information regarding required maintenance services the supplier will provide, including the timeframe and frequency.
3.4 Maintenance	Information about payment per hour, including definitions of when a job starts and finishes; travel expenses, from – to, fee per km, rules when several repair jobs are done on the same route; hotel bills; who should provide the spare parts; in cases the job is done by a sub-supplier, the invoice should be sent by the supplier with the contract. The prices should be according to the contract. (More information may be requested to be provided).
Purpose of 3.5	Provides information regarding required repairment services the supplier will provide, including the timeframe and frequency.
3.5 Repair	Information about payment per hour, including definitions of when a job starts and finishes; travel expenses, from – to, fee per km, rules when several repair jobs are done on the same route; hotel bills; who should provide the spare parts; in cases the job is done by a sub-supplier, the invoice should be sent by the supplier with the contract. The prices should be according to the contract. (More information may be requested to be provided).
Purpose of 3.6	Provides information regarding required refurbishment services the supplier will provide, including the timeframe and frequency.
3.6 Refurbishing	Not applicable in this call for tender.
Purpose of 3.7	Specifies if training service providers is required by suppliers, and the key elements included in the training (e.g. selection, assembly, fit, maintenance and repair of the assistive product). Refers to detailed training contents or materials, if available and applicable.
3.7 Training of service providers	Not applicable in this call for tender.
Purpose of 3.8	Specifies if training users is required by suppliers, and the key elements included in the training (e.g. training to users should include fit, use, maintenance and cleaning of the assistive product). Refers to detailed training contents or materials, if available and applicable.
3.8 Training of users	Not applicable in this call for tender.
Purpose of 3.9	Provides information regarding other supply and service requirements.
3.9 Other supply and service requirements	Not applicable in this call for tender.