



First Committee Draft (CD)

Project: New Recommendation
Title: R xxx Arched Chute Beltweighers (Info)
Date: 05 June2018
Document number: TC9_SC2_P9_N025
Supersedes document: -
Project Group: OIML TC 9/SC 2/p 9
Convenership: UK
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☐ ☐ Discussion at (date and place of meeting):

☐ ☒ Comments by: 05 September 2018

☐ ☐ Vote (P-members only) and comments by:

Template for comments and convener's observations

Date:2018-02-09

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Project: TC 9/SC 2/p 9

Country Code ¹	Part	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment ²	Comments	Proposed change	Convener's responses
FR-1		Explanatory note		ge	This project has been developed for a new technology of continuous totalizing automatic weighing instruments. This project is very similar to the recommendation R50 with adaptations with the new technology.	As indicated by the French CIML member, France is still wondering if a separate recommendation is required for this continuous totalizing automatic instruments of arched chute type. France recommends to add a new part in the R. 50 for this instrument.	Initially it was intended to amend the R 50, however at the time of writing the project proposal (2014) there was opposition on revising the just approved R 50. Therefore it was suggested to create a new Recommendation first using the R 50 as a model/template and amending where necessary. This also has the advantage that the drafts will not be too extensive while distinguishing between belt weigher and chute weigher in many clauses will not be necessary. Nevertheless when finishing the drafting there may come a moment where it would possibly be rather easy to integrate this new draft in R50. Nevertheless the approach in the present project is in agreement with the resolution accepted during CIML 2015.
01 DK	1			ge	No comments		Thank you; noted
002 AU	1	-	-	ge	Thank you for the good work done in developing this working draft.		Thank you; noted
FR-2		1.1 and 2.1.1		tech	The definition of a weighing instrument (2.1.1) is based on the use of "the action of gravity" but in the scope (1.1), it is indicated that the instrument measures "the centripetal force effected by the flow of solid matter on this chute". Moreover, in the 2.2.10, there is a "force cell" and not a "load cell". It seems the weighing principle is based on the measurement of the force that changes the momentum of the material. Can this instrument be considered as a weighing instrument with the current definition?"	Complete/modify the explanation about the principle of the instrument or complete the definition of a weighing instrument.	The instrument manner of measuring the mass is based on the centripetal force. The centripetal force is caused by the action of gravity and thus is a linear parameter in the measurement. "load cell" should not be applied. In principle the same or similar cells can be applied, but should be called force transducer. The text in the picture will be amended. The text will be reviewed
0003 AU	1	1.1	1	ge	As currently drafted, both clauses 1.1 and 1.2 describe the measuring principle of these type of instruments. I suggest clause 1.1 focusses on a general description (the use of an arched	This International Recommendation specifies the metrological and technical requirements for continuous totalizing automatic weighing instruments of the arched chute type,	The suggested modification is not wrong, but the gravity is a linear parameter in the centripetal force caused by the mass flow.

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					chute), and clause 1.2 focusses on the measuring principle (centripetal force).	hereinafter referred to as “arched chute (type) weighers”, that are subject to national metrological control.	
004 AU	1	1.1	2	ed	Unclear why this text needed editing. Suggest the original text is better.	Re-instate original sentence	During the telephone meeting on 13 th March it was suggested to delete this sentence, being rather redundant.
005 AU	1	1.2	1-2	te	Suggest to clarify the wording here, particularly the reference to gravity. As I understand it, the measuring principle here is the centripetal force, which is caused by the product flowing over the curved surface, not by gravity.	This Recommendation applies to: arched chute weighers that determine the totalized mass value of a product in bulk by the action of centripetal force as a consequence of the mass flow of the product along the arched chute.	Misunderstood. See earlier response An annex will be made showing the principle and formulas
006 AU	1	2.1.4	1	te	Should this definition include vertical flow? Could there be designs where the product does not flow vertically.	CTAWI designed to cause a centripetal force proportional to the mass of bulk product passing along the circular arched surface of the force receptor.	Please do not confuse the principle with Coriolis or other mass flow metering systems. The influence of gravity is linear therefore only a vertical flow will provide accurate measurement results
FR-3	1	2.1.7		ed	The bibliographic reference of [VIML 4.03] is not written.	Add a [2] after [VIML 4.03]	agree
FR-4	1	2.1.8		ed	The first sentence matches with the definition in R-50. The second and third sentences from [VIML 4.08] seem to be repetitive.	Choose one of the definitions.	agree
007 AU	1	2.1.8	-	ed	Needs editing – suggest to only keep the definition of legally relevant as per VIML 4.8		agree
008 AU	1	2.1.9	-	ed	Remove or update the reference “[23]”.		agree
FR-5	1	2.2.9		tech	The sentence is not clear.	Proposed sentence: “device used to pre-set a weight value for a totalized load”	Will be deleted if not used in the further draft
12 NL-1	1	2.2.9		te	<i>“pre-selection device means used to pre-set a weight value for a totalized load”</i> Not completely clear what is meant.		deleted if not used in the further draft.
FR-6	1	2.2.10		ed	There is not the reference of the concerned paragraph after “internal clock” in the table.	Please add (2.2.10.2) after “internal clock” in the table	agree
FR-7	1	2.2.10	Fig. 1	tech	The table deals with “force receptor” and the 2.2.10.1 deals with “force transducer”. If it is	Please harmonise if necessary.	To be optimized and fine tuned Nr. 2 in the picture should be “force transducer”

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					about the same module, the table must be harmonised with the title of 2.2.10.1.		
FR-8	1	2.2.10	Fig. 1	ed	The references [VIML, 4.10], [VIML, 6.01], [VIML, 6.02] belong to the reference [2] and not [23].	Replace [23] by [2]	agree
009 NL-3	1	2.2.10		ed	<i>“part of the force receptor, that, converts the measured induced force into another measured quantity (output)”</i>	amend to <i>“part of the force receptor, that converts the measured induced force into a different measurement quantity (output)”</i>	agree
10 NL-2	1	2.2.10	Figure 1	ge		Figure 1 needs to be reviewed	Figure amended.
FR-9	1	2.2.11.2 2.2.11.5 2.2.11.6		ed	The references [VIML, 4.10], [VIML, 6.01], [VIML, 6.02] belong to the reference [2] and not [23].	Replace [23] by [2]	agree
11 AU	1	2.2.5	-	te	Does the totalisation device only require information from the force receptor? Figure 1 suggests that time information from an internal clock is required, but is the velocity of the product also be required?		Velocity of the product is not a (primary) parameter in the measurement. Probably the velocity range requires to be limited and related to the product maximum and minimum mass flow. Needed to define; include mass flow
FR-10	1	2.3.2		tech	The definition of “weighing segment length (WL)” is not clear. Is it exactly the same part (and same length) than the arched plate?	Clarify the definition. (perhaps a picture of the instrument would be useful).	Clarification on radius and length is needed A diagram/drawing to be produced by manufacturer NL.
13 AU	1	2.3.2	-	te	What is the significance of weighing segment length? If required, how is the length determined? Is it specified by the manufacturer?		This is a definition. The determination may be added in the definition though it may be wise to define using a drawing. Like other specifications of the instrument this length will need to be specified by the manufacturer.
14 AU	1	2.3.3	-	ed	Suggest to simplify and improve grammar.	maximum force that the force receptor is designed to determine accurately	“accurately” is not defined. Agree and delete “accurately”
FR-11	1	2.3.2		tech	Some metrological characteristics (ex: maximum capacity) are defined by a force. As a weighing instrument, must these characteristics be defined with mass/load? Is not the load/mass		Not to be changed. It concerns keep as is and use further in the document

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					clearer for the user than a force ?		
15 AU	1	2.3.4	-	ed	Suggest to simplify and improve grammar.	minimum force that the force receptor is designed to determine accurately	“accurately” is not defined. Agree and delete “accurately”
16 AU	1	2.3.5	-	ed	Flowrate has been changed to mass flowrate. Consider also changing maximum and minimum terms to include mass.	Insert mass for maximum and minimum flowrate.	terms 2.3.5.1 and 2.3.5.2 to be changed to maximum mass flowrate, Q_{max} minimum mass flowrate, Q_{min}
17 AU	1	2.3.5.3	-	Ge	This definition refers to a previous device. Previous device is not defined.	Consider renaming “previous device” to “product infeed” or similar. Add a definition of product infeed: device that directs the flow of product on to the slide chute.	“previous” to be changed to “preceding” infeed definition could be implemented, but doubt whether this is necessary.
18 AU	1	2.3.6	-	ed	Suggest to retain the term “minimum”, not “minimal”. Also suggest to simplify the definition. Use a consistent term throughout the document. (eg: 2.7, 3.4)	2.3.6 minimum totalized quantity, \sum_{min} totalized quantity, in units of mass, below which totalized values may be subject to errors exceeding the applicable MPE	agree
19 NL-4	1	2.3.9	-	ed	“2.3.9 measurement repeatability repeatability” alignment problem	2.3.9 measurement repeatability repeatability	agree
FR-12	1	2.3.10 2.4.5.1 2.4.5.2 2.4.5.3 2.4.5.7 2.5.1.1 2.5.1.2 2.6.2 2.6.3	-	ed	The references [VIML, 5.15], [VIML 0.06], [VIML 5.11], [VIML 5.12], [VIML 5.16], [VIML 5.18], [VIML 5.19], [VIML 5.21], [VIML 5.22] belong to the reference [2] and not [4].	Replace [4] by [2]	To be checked
FR-13	1	2.3.11 2.4.1		ed	The references [VIML, 4.02], [VIML, 0.03] belong to the reference [2] and not [3]	Replace [3] by [2]	To be checked
FR-14	1	2.7		ed	The totalization scale interval used for testing is not defined but used in the basic relationships. The abbreviation for the totalization scale is “d”	Add “e totalization scale interval used for testing” in the abbreviations and meaning and replace “D” by “d” for the totalization scale.	To be studied for consistency. NL + CECIP will report

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					and not “D”.		
020 AU	1	3.4	-	te	The value calculated in b) will always be less than in a) because they are both based on quantity at maximum flowrate.	Remove b).	agree
021 AU	1	3.4	-	ed	If the term Minimal Totalized Quantity (rather than Minimum) was introduced to avoid using minimum twice in this clause title, I suggest it is preferable to amend this clause.	Replace clause title with “Lower limit for minimum totalized quantity.”	agree
022 AU	1	3.7.2	1	te	It is unclear what is meant by the “margins between the vertical inflow of the product and the vertical position of the force receptor”. See proposed change.	Eccentric product flow shall not lead to a totalization error exceeding the maximum permissible errors (as specified in 3.2.2 Table 2). Eccentric product flow may result from: <ul style="list-style-type: none"> - non-uniform or eccentric distribution of product mass flowing from the product infeed; - mis-aligned product flow, that is, misalignment between the product infeed and the slide chute. 	agree in principle. The second part is not a requirement but only for information therefore it should be a note included as follows: Eccentric product flow shall not lead to a totalization error exceeding the maximum permissible error (as specified in 3.2.2 Table 2). <i>Note</i> Eccentric product flow may result from: <ul style="list-style-type: none"> - non-uniform or eccentric distribution of product mass flowing from the product infeed; - misaligned product flow, that is, misalignment between the product infeed and the slide chute.
023 AU	1	3.7.4	-	Ge	Should the title include “and time”? There is no mention of time in this clause or sub-clauses.	Change the clause title to “Influence quantities”	agree; delete “and time”
024 AU	1	3.7.5.2	1	Ge	The words “at least” have been omitted from the original text. These words are needed.	At any flowrate between the minimum and maximum flowrates, the difference between the indications obtained for two totalized quantities, differing by a value equal to the maximum permissible error, shall be equal to <u>at least</u> one half of the calculated value from the difference between these totalized loads.	agree with suggestion to also correct the location of “at least” in the sub clause so to: “...shall be equal to at least one half of the calculated value from the difference between these totalized loads”
025 AU	1	3.8.2	-	Ge	This clause is identical to clause 3.7.5.3. It is also in the in situ requirements section, but seems to be drafted as a lab test (with a force applied/removed). Review:		not applicable for AC CTAWI

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					a) Why does this test need to be performed as both a lab test and in-situ test? b) Can the test be performed in-situ?		
FR-15	1	4.3.6	-	ed	There are two commas and two dots in c) and d).	Delete a comma in c) and a dot in d).	
026 AU	1	4.4.1	2	Te	Item a). It is unclear to me what this requirement means and how it would be assessed. Further, we have not seen analogue indicators in Australia any time recently. Do we still need requirements for analogue indicators?		preference delete a)
027 AU	1	4.5 and 4.5.1	-	Ge	The term “force receiver” is used in these clauses. The defined term in “force receptor”.	Suggest to use force receptor.	agree to correct
FR-16	1	4.4.6	-	ed	It is written “Totalization indicating and printing devices (when printing devices are present) shall remain engaged at all times except as provided for in 4.4.6 b).” It is not understandable. Is it not 4.4.5 b)?		To be checked
028 AU	1	4.6.1.2	1	Ge	It is unclear if the slide chute length is different to the weighing segment length. In any case, what is the need for being so prescriptive about the curve of the slide chute? Shouldn't this Recommendation be about the performance not how the instrument is designed?	Remove	The slide chute length is very important and needs to be specified in the approval documentation Further information on the principle may be needed to add to the Recommendation. Homework for CECIP
029 AU	1	4.6.1.2	3	Ed	The wording here is unclear. Is the issue if the slope angle of the force receptor changes (but remains perpendicular to the product flow)? Or is the issue if the slope angle of the force receptor changes relative to the product flow? I would assume the issue is the latter.		May be described in better wording but both is of influence
030 AU	1	4.6.1.2	3	Ed	Also, the term ACT is not defined. I assume it is arched chute type?	Replace ACT with arched chute weigher.	Originally used; to be harmonized through the draft
031 AU	1	4.6.1.3	1	Ed	Editorial correction	Replace “suite” with “suit”	agree

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032 AU	1	4.6.1.3	1	Ge	If different designs of slide chute are needed, what tests shall be needed for each different slide chute?		Tests concern part 2
FR-17	1	4.7.2		tech	In the markings, the max capacity is indicated with units of mass whereas in the definition of the max capacity (2.3.3), the definition is based on the force. It seems to be not logical.	Harmonize the definition and the units.	to be corrected. max capacity is force (newton)
033 NL-5	1	4.7.2		ge	Specific extra markings are required for Arched Chute CTAWI	To be added: - density of the product in kg/L or t/m3 - diameter of grain size in mm or - powder particle diameter in µm	to be added
034 AU	1	4.7.2	-	Te	As defined, Max is a force, not mass, and should be measured in units of newtons.	Change "...Max g, kg or t", to "...Max N"	to be reviewed and corrected
035 AU	1	4.7.4	-	Ge	This clause is confusing. It includes in the final dot point a marking that is not specified in 4.7.1, 4.7.2 or 4.7.3 - pneumatic/hydraulic pressure, (if applicable). Is pneumatic/hydraulic pressure a marking required for metrology?	Suggest to either include pneumatic/hydraulic pressure, (if applicable), under required markings or remove from the list.	to be decided. Include only if pneumatic/hydraulic powered
FR-18	1	5.5.2		ed	There is no sentence in 5.5.2 but only the title	Remove the title or add a sentence after the title. For example, in R 50-1, there is the sentence "instruments shall comply with the requirements in 5.1.1"	To be checked
FR-19	1	5.5.4		ed	A space is missing between "at least" and "5 minutes".	Add a space between "at least" and "5 minutes".	To be checked
FR-20	1	6.1.6		tech	The d) deals with "load sensor" but in 2.2.10, there is no "load sensor" but a "force receptor". (In relation with comments on 1.1 and 2.1.1)	Please clarify the type of sensor and harmonize.	Replaced with "force transducers"
FR-21	1	6.1.6.4 6.1.6.5		tech	The text in a) deals with "analogue strain gauge load cells" and the d) and k) deals with "force receptor" and not "load receptor". In the fig 1 (2.2.10), there is no "load cell" but a "force cell". (In relation with comments on 1.1 and	Please clarify the type of sensor and the type of receptor and harmonize.	Replaced with "force transducers"

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					2.1.1)		
FR-22	1	6.1.6.4		ed	The k) ends with the word “and” without text.	Delete the “and”.	
FR-23	1	6.1.6.6		ed	The text deals with “load cell” “load sensor” but there is no load cell or load sensor in the modules of the instrument. Moreover, in the end of 6.1.6.7, there is “force sensor” and not load sensor” (In relation with comments on 6.1.6.4 and 6.1.6.5).	Please clarify the type of sensor and harmonize.	Replaced with “force transducers”
FR-24	1	7.1.2		tech	The reference (R XX-1, 2.1.11) does not exist. For information a paragraph 2.1.11 “displacement simulation device” exists in R 50-1.	If a simulator is required for the tests, put a paragraph on it in R XX-1 If not, remove 7.1.2.	Origins from part 2; come back on that after Vincent van de Wel has produced information
036 AU	1	7.3	-	Te	Are we applying weights or force? The instrument is not designed as a weighing instrument using gravity, it is a force receptor measuring centripetal force. How will the test lab use standard weights to simulate force on a receptor at an arbitrary angle? It seems to me resulting force on the receptor may be sensitive to the position and placement of a “platform” and the distribution of weights on it. And of course the masses will only generate a component of force in the direction of the force receptor, so the force will be affected by the angle of the force receptor. Suggest this simulation testing requires discussion.		Has to be worked out better. Requires detailing
037 AU	1	7.5	b)	Te	This needs editing following discussion on how simulated testing could work. This text refers to a load receptor and a belt. There is also an errant “l” at the end of the first sentence.		this comment is connected to 7.3 and further editorial Vincent van der Wel will deal with this
FR-25	1	Bibliography		ed	The numbers in the bibliography must be modified because of the lack of the reference 3.		

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038 DK	2		-	Ge	No comments		
FR-26	2	2.3	-	ed	The reference R XX-1, 4.10 does not exist. The verification marks are in the 4.8.	Change 4.10 by 4.8	
039 NL-17	2		Test B	te	<p><i>With the discrimination load applied to the force receptor, run the and zero the instrument with the automatic zero-setting device disabled. Stop the instrument or note the totalization.</i></p> <p><i>Run the instrument with the discrimination load applied for the same number of revolutions as in test A. Record the indication on the indication device used for zero-setting. Stop the instrument or note the totalization.</i></p> <p><i>Remove the discrimination load from the force receptor and run the slide chute for the same number of revolutions . Record the indication on the indication device used for zero-setting</i></p>	<p>Amend as follows or delete this test</p> <p><i>With the discrimination load applied to the force receptor, activate and zero the instrument with the automatic zero-setting device disabled. Stop the instrument or note the totalization.</i></p> <p>Activate the instrument with the discrimination load applied during a time interval of 3 minutes as in test A. Record the indication on the indication device used for zero-setting. Stop the instrument or note the totalization.</p> <p><i>Remove the discrimination load from the force receptor and wait for 3 minutes. Record the indication on the indication device used for zero-setting</i></p>	Amended as proposed. However, awaiting further input from Vincent van der Wel of CECIP
FR-27	2	5 – 10		ge/tech	Are all the described tests achievable as they are described? Has a body already realised these tests to ensure they are achievable as described with the new technology?		noted will be worked on what do we need and how to be done
FR-28	2	5.2		ed	The description of tests A and B contains “speed CTAWIs”, “variable speed” and “multi-speed CTAWIs at maximum flow speed”. It would be more understandable to precise it is “inflow speed”.	Add “inflow” before “speed every time”.	Amended As proposed.
040 NL-6	2	5.2	Test A	te	<p><i>...with a load on the slide chute to equate to Q_{min} (nominally 20 % of Max) for fixed speed CTAWIs...</i></p> <p>“speed” is not applicable.</p>	<p>change to:</p> <p><i>...with a load on the slide chute to equate to Q_{min} (nominally 20 % of Max) for fixed capacity CTAWIs...</i></p>	agree

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FR-29	2	5.4.1	-	ed	The reference (R XX-1, 3.7.2) in the title is inappropriate. The variation in inflow speed is explained in RXX-1, 3.7.1).	Replace 3.7.2 by 3.7.1.	
041 NL-7	2	5.4.1		te	Variation in the inflow speed Suggest to avoid “speed” Multi-speed is not applicable. It is only the flowrate that is variable	Suggested to amend to: “ <i>Variation in the flowrate of the inflow</i> ” and change all other occurrences of “speed” in this subclause to “flowrate” Suggest to discuss this sub clause.	agree
042 NL-8	2	5.4.1.1		te	Density is an important parameter of influence to the weighing result arched chute CTAWI	A subclause dealing with variation in density should be added	Test related to density to be added developed by Vincent
FR-30	2	5.4.2		ed	The reference (R XX-1, 3.7.3) in the title is inappropriate. The eccentric loading is explained in R XX-1, 3.7.2). Moreover, the tiles are different between R XX-1 (“Eccentric inflow”) and R XX-2 (“Eccentric loading”).	Replace 3.7.3 by 3.7.2.	Agreed. Eccentric inflow is in Part 1, 3.7.2
043 NL-9	2	5.4.2		te	This subclause needs to be reviewed on applicability to the AC CTAWI. E.g. the distribution of a load along the force receptor will not be possible.	Suggest to discuss this subclause	To be described differently. To be Based on static load
044 NL-10	2	5.4.4		te	The test as presented in this clause cannot be executed	Suggest to delete the test and to discuss whether an alternative test is needed	Maybe add something about sticky material Important to check
FR-31	2	6.4	e)	ed	The reference (R XX-1, 4.4.3.3) does not exist. For information, this paragraph is in the R 50:2014.	If a supplementary totalization indicating device is possible, add a paragraph on it in R XX-1: If not, remove 6.4 e).	Added in Part 1, 4.4.8
045 NL-11	2	7.1.2		te	Using a simulator. “ <i>The simulator should include standard weights and a mass flow simulating device..</i> ”	Amend to read “ <i>The simulation should include standard weights simulating a mass flow mass on the force receiver....</i> ”	agree
046 NL-11b	2	7.3		ge	“ <i>Value of the significant fault (see R xx-1, 2.4.5.4).</i> ”	change to “ <i>fault limit value</i> ” (see R xx-1, 3.7.4.4)”	Amended.

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Country Code ¹	Part	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment ²	Comments	Proposed change	Convener's responses
FR-32	2	7.3.1		tech	The duration /for test c is 10 cycles. In D11, it is 10 or 12 cycles for 50 Hz (Europe) / 60 Hz (USA) respectively.	Harmonize with D11.	agree. To be corrected
047 NL-12	2	8.1		te	<p>"1) Apply a <i>distributed load of 20 % Max</i> on the force receptor ...</p> <p>... Remove the load, allow the belt-weigher to run empty and reset the indication to zero if necessary. Repeat the test with the same load..."</p> <p>2)Repeat the whole test with a load of 50 % Max ...</p> <p>3)Repeat the whole test with a load of 75 % Max ...</p> <p>4)Repeat the whole test with a load of Max ...</p>	<p>Amend as follows</p> <p>"1) Apply a <i>load representing 20 % of Max</i> on the force receptor ...</p> <p>... Remove the <i>load and</i> reset the indication to zero if necessary.</p> <p>Repeat the test with the same load.... "</p> <p>2)Repeat the whole test with a load <i>representing 50 % of Max</i> ...</p> <p>3)Repeat the whole test with a load <i>representing 75 % of Max</i> ...</p> <p>4)Repeat the whole test with a load <i>representing Max</i> ...</p>	Amended in accordance with proposal from the sub-group (Netherlands/CECIP)
048 NL-13	2	8.2		te	<p>"1)Apply a distributed load of 20 % Max on the force receptor and (normally a preset number of pulses).</p> <p>.. 2)Totalize again for the same equivalent slide chute length.</p> <p>3)Repeat for a load of 50 % Max.</p> <p>4)Repeat for a load of 75 % Max.</p> <p>5)Repeat for a load of Max".</p>	<p>Amend as follows</p> <p>"1)Apply a distributed load <i>representing 20 % of Max</i> on the force receptor and (normally <i>a length of time</i>).</p> <p>.. 2)Totalize again for the same <i>a length of time</i> 3)Repeat for a load <i>representing 50 % of Max</i>.</p> <p>4)Repeat for a load <i>representing 75 % of Max</i>.</p> <p>5)Repeat for a load <i>representing Max</i>".</p>	Amended in accordance with proposal from the sub-group (Netherlands/CECIP)
049 NL-14	2	8.3		te	Not applicable to AC CTAWI	Delete the sub clause completely	agree
050 NL-15	2	8.4		te	Not applicable to AC CTAWI	Delete the sub clause completely	agree
FR-33	2	9.1.1		ed	It seems to be a mistake in the numbering of paragraphs	Replace xx-9.1.1 by 9.1.1	To be checked

1 Country code (enter the ISO 3166 two-letter country code, e.g. CN for China)

2 Type of comment: ge = general te = technical ed = editorial

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051 NL-16	2	9.1.1	Test A	te	Run and zero the instrument with the automatic zero-setting device disabled. Stop the instrument or note the totalization. Run the instrument with no load for a whole number of revolutions and of a duration as close as possible to 3 minutes. Record the indication on the indication device used for zero-setting. Stop instrument or note the totalization. Apply the discrimination load to the force receptor and run the instrument for the same number of revolutions. Record the indication on the indication device used for zero-setting. Stop the instrument or note the totalization.	Amend as follows <i>Activate</i> and zero the instrument with the automatic zero-setting device disabled. Stop the instrument or note the totalization. <i>Activate</i> the instrument with no load during a time interval of 3 minutes . Record the indication on the indication device used for zero-setting. Stop instrument or note the totalization. Apply the discrimination load to the force receptor and run the instrument during 3 minutes . Record the indication on the indication device used for zero-setting. Stop the instrument or note the totalization.	To be checked
FR-34		9.1.2		ed	The reference (R XX-1, 3.8.4) does not exist.	If the test is required, add a paragraph in R XX-1 as in R 50-1.	To be checked
052 NL-18	2	9.1.2	te	te	Not applicable to AC CTAWI	Delete the sub clause completely	agree
053 NL-19	2	10.1.1		te	..., for initial verification or in-service, as appropriate for the class of the CTAWI, and that for "repeatability", the relative errors (R xx-1, 3.8.1) for several results obtained at practically identical flowrates , ... This kind of CTAWI require tests to be performed using different grain/powder particle sizes and different densities	Suggest to amend in the following manner ..., for initial verification or in-service, as appropriate for the class of the CTAWI, <i>The tests shall be performed using a number of different grain and/or the powder particle sizes as appropriate for the specific type or instrument an limited to three sizes and three densities.</i> <i>For "repeatability", the relative errors (R xx-1, 3.8.1) for several results obtained at practically identical flowrates .,</i>	agree
054 NL-20	2	10.3		te	Not applicable to AC CTAWI	Delete the sub clause completely	minimum and maximum mass flow in relation to particle size has to be defined and tested. Will be worked out
055 NL-21	2	10.3.1		te	Not applicable to AC CTAWI	Delete the sub clause completely	To be checked

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056 NL-22	2	10.3.2		te	Not applicable to AC CTAWI	Delete the sub clause completely	To be checked
057 NL-23	2	10.3.3		te	Not applicable to AC CTAWI	Delete the sub clause completely	To be checked
058 NL-24	2	B.1		ge	Mechanical AC CTAWI do not exist.	Delete “mechanical – no electronics” from the bulleted list	decided to delete
059 NL-25	2	B.1		ed	<p>“Those instruments using load cell technology may further be categorized by using the method whereby the load cells are mounted on/connected to the weight receiving element and supporting structures. Examples may include, but are not limited to</p> <ul style="list-style-type: none"> - direct mounting of load cells without check rods, - connection of the weighing elements to the load cell via a lever system, - isolation from forces not directly derived from the weighed mass.” 	<p>Suggest to amend as follows:</p> <p>“The instruments using load cell technology may further be categorized by using the method whereby the load cells are mounted <i>and the way in which the force from the force receptor is introduced to the load cell.</i></p> <p>Examples may include, but are not limited to:</p> <ul style="list-style-type: none"> - direct mounting <i>of the force receptor on the load cell</i> without check rods, - connection of <i>the force receptor to the load cell</i> via a lever system.” 	To be checked
060 NL-26	2	B.1		te	<p>“An additional method of classifying instruments within a family can be based on the number and configuration of idlers used within the weighing element. Examples may include, but are not limited to</p> <ul style="list-style-type: none"> • multiple idler, fully-suspended, • multiple idler, modular, • multi idler, approach/retreat weigh frame with a lever connected to a single load cell.” <p>Not applicable to AC CTAWI</p>	Delete	to be deleted
061 NL-27	2	B.1		te	<ul style="list-style-type: none"> • unit with the highest frequency of mass flow transducer output. <p>2)For in-situ testing: The lowest number of weigh idlers in the family is preferred. When this is not possible, future</p>	Delete	to be deleted

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					<i>instruments with fewer numbers of rollers (idlers) shall be considered for inclusion in the approval if they comply with R xx-1, 3.8.</i> Not applicable to AC CTAWI		
062 NL-28	2	B.2		te	"mass flow transducer" is not applicable to AC CTAWI	Delete "mass flow transducer" from the bulleted list	include force receptor
063 DK	3			Ge	No comments		
FR-35	3			ed	In CTAWI, WL is the weighing segment length and not the weigh length.	Replace weigh length by weighing segment length in the table.	agree

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