

Calibration List

IM 8800



Inframatic 8800 analyzes a wide range of grains and oilseeds in about 90 seconds.

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INSTRUMENTS
a PerkinElmer company

Calibration List IM 8800

Product	Parameter	Range (%)
Barley, 18 mm cell	Moisture	8.1 - 20.5
	Nitrogen 12% MB	1.13 - 2.31
	Nitrogen Asis	1.06 - 2.36
	Nitrogen DB	1.29 - 2.62
	Protein DB	8.0 - 16.4
	Protein Asis	6.6 - 14.7
Canola, 7 mm cell	Moisture	4.0 - 17.7
	Oil 9% MB	32.2 - 48.3
	Oil Asis	32.7 - 49.4
	Oil DB	35.4 - 53.1
	Protein Asis	17.4 - 28.0
	Protein DB	18.7 - 30.3
Corn, 25 mm cell	Moisture	8.6 - 21.4
	Oil DB	2.8 - 15.1
	Oil asis	2.3 - 13.3
	Protein DB	5.6 - 15.6
	Protein asis	4.9 - 14.0
Oats, 20 mm cell	Moisture	11.5 - 21.0
	Protein DB	8.5 - 12.3
Rye, 18 mm cell	Moisture	11.5 - 21.5
	Protein DB	6.9 - 10.4
Sorghum, 15 mm cell	Moisture asis	7.5 - 14.5
	Protein asis	6.5 - 12.75
Soybeans, 25 mm cell	Moisture	7.0 - 16.1
	Oil DB	12.0 - 25.4
	Oil Asis	10.8 - 23.4
	Oil 13% MB	10.4 - 22.1
	Protein DB	29.5 - 59.3
	Protein Asis	26.7 - 53.7
Triticale, 18 mm cell	Protein 13% MB	25.7 - 51.6
	Moisture	6.2 - 21.6
	Protein DB	8.5 - 23.3
Wheat, 18 mm cell	Moisture	6.2 - 21.6
	Protein 11 MB	6.8 - 18.9
	Protein 12% MB	6.8 - 18.7
	Protein 13.5% MB	6.7 - 18.4
	Protein Asis	6.8 - 18.7
	Protein DB	7.3 - 21.2
	Wet Gluten Asis	15.5 - 37.5

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The Inframatic 8800 is calibrated against the Inframatic 9500, which is officially approved in a number of countries.

Please contact your local Perten representative with requests on other products and/or parameters.

Calibration List

IM 9500



IM 9500 meets the requirements of grain handling operations. It analyzes a wide range of grains and oilseeds in less than 30 seconds.

Flour Module turns the IM 9500 into a flexible analyzer used both for grading incoming grain and monitoring the milling process.

Small sample cuvette provides added capability when sample volume is limited or when the sample can't flow through the regular feeder.

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Calibration List IM 9500

Product	Parameter	Samples	Range (%)	R	Sample prep.
Whole Grain					
Barley	Moisture *	4000+	7.2 - 25.6	0.99	None
	Protein *	4000+	6.8 - 17.6	0.98	None
	Nitrogen	2000+	1.08 - 2.81	0.96	None
	Starch	3000+	58.8 - 67.1	0.85	None
Canola/Rapeseed/Mustard	Moisture *	1000+	3.83 - 21.8	0.99	None
			35.0 - 55.0		
	Oil *	700+	(Mustard 33.0-53.5)	0.97	None
	Protein	300+	14.2 - 28.0	0.99	None
Corn	Moisture *	1000+	5.7 - 44.7	1.00	None
	Protein *	800+	5.2 - 15.9	0.97	None
	Oil *	800+	2.7 - 18.5	0.97	None
	Starch	300+	60.0 - 74.8	0.98	None
	Moisture	200+	10.0 - 31.0	0.99	None
Field Beans	Moisture	100+	9.3 - 22.4	1.00	None
Field Peas	Moisture	300	2.3 - 6.3	0.92	None
Malted Barley	Protein	300	7.3 - 15.0	0.91	None
	Soluble Protein	300	3.3 - 6.1	0.81	None
	Soluble Nitrogen	300	0.53 - 0.98	0.72	None
	Extract FG	300	76.0 - 85.0	0.86	None
Oats	Moisture *	200+	8.0 - 25.3	0.99	None
	Protein *	100+	8.0 - 15	0.92	None
Rice, brown and polished	Moisture	100	11.2 - 16.0	0.97	None
	Protein	100	7.1 - 10.2	0.94	None
Rice, paddy	Moisture	100+	10.0 - 27.2	0.99	None
Rye	Moisture *	400+	10.0 - 27.5	1.00	None
	Protein *	200+	5.7 - 14.0	0.99	None
Sorghum	Moisture	200+	10.4 - 18.7	0.99	None
	Protein	100+	8.0 - 13.8	0.93	None
Soybeans	Moisture *	1200+	5.3 - 18.1	0.99	None
	Protein *	700+	32.2 - 54.7	0.99	None
	Oil *	700+	15.6 - 28.9	0.98	None
	Fiber	700+	4.2 - 6.3	0.97	None
Triticale	Moisture	4000+	7.1 - 25.7	1.00	None
	Protein	4000+	7.2 - 23.8	0.99	None
Wheat (soft and durum)	Moisture *	6000+	7.1 - 25.7	0.99	None
	Protein *	6000+	6.5 - 21.7	0.99	None
	Starch	2000+	65.2 - 73.0	0.92	None
	Wet gluten *	6000+	11.3 - 45.5	0.98	None
	Zeleny sedim.	2000+	8.6 - 78.4	0.94	None
Flour Module					
Wheat Flour Part no. 35370	Moisture	2000+	9.2 - 16.2	0.97	Flour cuvette
	Protein	1000+	6.1 - 21.3	0.99	Flour cuvette
	Ash	1000+	0.38 - 0.89	0.97	Flour cuvette
	Wet gluten	1500+	16.0 - 53.0	0.93	Flour cuvette
	Zeleny sedimentation	800+	7 - 54	0.91	Flour cuvette
	Brightness L	500+	83.9 - 92.8	0.95	Flour cuvette
Whole meal Flour Part no. 35370	Moisture	2000+	9.2 - 16.2	0.97	Flour cuvette
	Protein	1000+	6.1 - 21.3	0.99	Flour cuvette
	Ash	2000+	0.38 - 2.11	0.95	Flour cuvette
	Brightness L	400+	83.9 - 92.8	0.95	Flour cuvette
Rye Flour Part no. 35370	Moisture	150	9.8 - 15.2	0.99	Flour cuvette
	Protein	1000+	6.1 - 21.3	0.99	Flour cuvette
	Ash	180	0.53 - 4.06	0.98	Flour cuvette
Wheat Bran Part no. 35390	Moisture	200	10.8 - 13.8	0.85	Semolina cuvette
	Protein	100	14.7 - 18.7	0.86	Semolina cuvette
	Ash	200	5.9 - 7.3	0.67	Semolina cuvette
Semolina/Durum Flour Part no. 35390	Moisture	250	9.5 - 15.4	0.99	Semolina cuvette
	Protein	250	10.5 - 15.6	0.97	Semolina cuvette
	Ash	500	0.61 - 7.55	0.99	Semolina cuvette
	Yellowness b	380	17.1 - 38.4	0.91	Semolina cuvette
	Brightness L	250	77.7 - 89.2	0.97	Semolina cuvette
Small sample cuvette					
Green Malt part no. 33741	Moisture	100+	32-52	0.96	Small sample cuvette

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NIR is an indirect method and the actual accuracy will depend on the accuracy of the reference method which is used for comparison with the IM 9500. For most products and parameters a typical accuracy would be 1-1.5 times the accuracy of the reference method.

* IM 9500 is delivered with these calibrations pre-installed.

Please contact your local Perten representative with request on other products and/or parameters