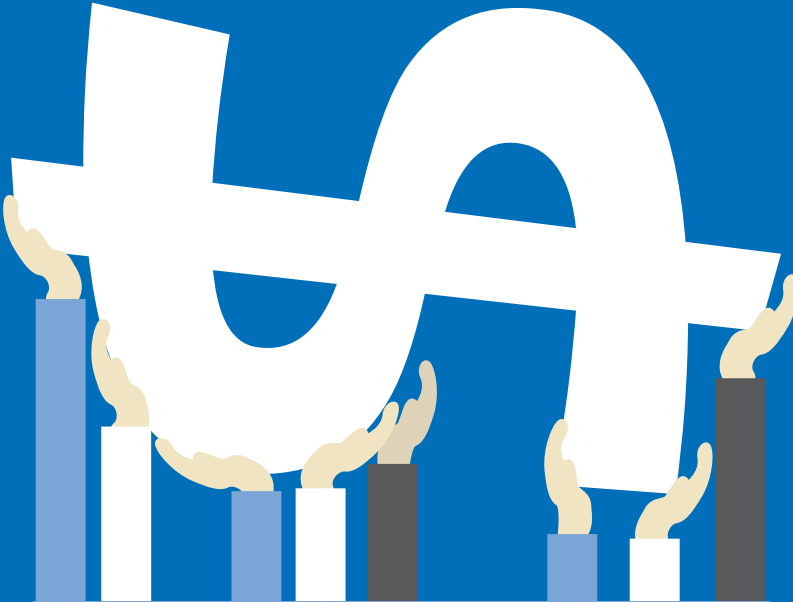


PROCESS CONTROL
SOLUTIONS FOR ALL YOUR
Dairy Applications

Save On

- ✓ **Accuracy** (Compared to NIR & IR)
- ✓ **Stability** (No Recalibrations)
- ✓ **Versatility** (No Limitations to Products Tested)



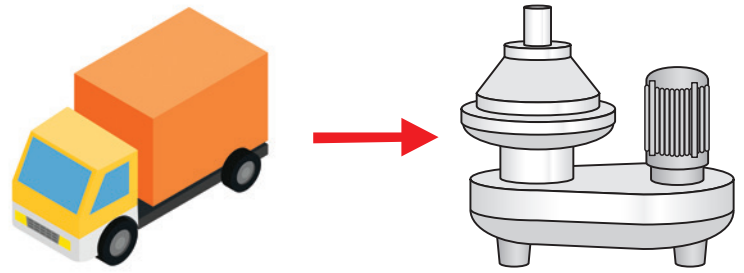
Cost Savings

	Fat		Protein		Moisture/Solids	
	CEM	Ref	CEM	Ref	CEM	Ref
Whey	0.30	0.32	0.07	0.08	6.50	6.38
Heavy Cream	39.93	39.96	2.86	2.89	54.40	54.43
Milk Powder	1.07	1.09	35.58	35.33	3.95	3.93
Yogurt	1.59	1.61	2.48	2.48	77.93	77.94
Cheddar Cheese	31.32	31.29	23.64	23.62	36.68	36.76
Ice Cream	9.75	9.77	3.93	3.94	62.01	62.05

Using 10k gallons of cream per day at \$2.00 per gallon & 40% target fat value,

CEM systems can achieve fat results that are 0.20% more accurate than NIR/FTIR, for a Savings of

\$91K per year!



Incoming Raw Materials

Knowing, really knowing, the fat, solids, and protein content of dairy products is critical. Taste, texture, mouth feel, and shelf-life of a quality product all rely on accurate amounts of each component. A rapid & direct test of all raw materials as they come in allows for optimal formulation of all finished products. Test whey, milk, NFDM, additives, and more using plug & play methods; no method development required.

CEM systems are versatile enough to accurately determine the fat, protein, & solids content of any sample, regardless of moisture content. Direct measurement means new suppliers, temperature changes, and additive changes do not require new methods or recalibration.



Milk Powder

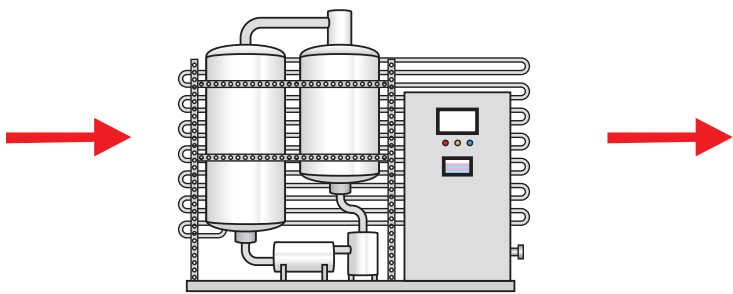


Liquid Milk

SMART 6 For Moisture/Solids

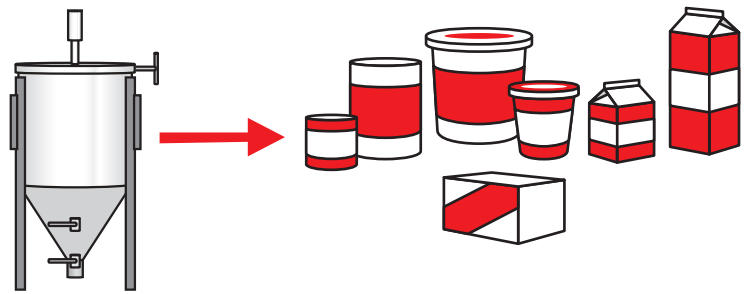


- ✓ Analyze any product including, incoming milk, in-process cheese, and finished dairy powder with iPower®
- ✓ 60-90 second analysis with iDri™
- ✓ Utilizes AOAC approved technology (PVM 1:2004)
- ✓ Easy to use touchscreen
- ✓ IP-65 compliant option



In-Process Product

Once mixing, churning, condensing, fermenting, and other in-process procedures begin, the product continuously changes until it reaches a stable final state. CEM analyzers provide better accuracy so users can confidently reduce high cost ingredients necessary to meet specifications on fat and protein without worrying about poor quality or rejected final product. Moisture content can now be accurately tested in as little as 60 seconds to ensure a faster in-process adjustment, with fat results delivered with a 30 second analysis. CEM systems are the only solution to analyze all in-process products, meaning one analyzer for all stages of production, backed by AOAC approved methodology for better formulations and maximized profit.



Finished Goods

Quality is making products that always meet specifications, time after time. Let CEM help minimize batch to batch variations, reduce rejected shipments, and have the option to quickly check every shipment for faster batch/product release. Customers get the product they want while manufacturers pay a fair price for the goods received. Directly, accurately, and quickly verify fat, protein, and/or moisture/solids for all dairy products before they leave using AOAC approved methods.

The ORACLE™, Sprint®, and SMART 6™ systems generate results you and your customers can count on.



Cheese



Cottage Cheese



Ice Cream



...and many more!

Yogurt

ORACLE

For Moisture/Solids & Fat



- ✓ Universal primary fat analysis of any sample
- ✓ 30 second fat analysis
- ✓ No method development or recalibration
- ✓ Replaces Mojonnier, Gerber, Babcock, or IR (NIR, FT-IR, FT-NIR)
- ✓ Utilizes AOAC approved technology (PVM 1:2004)

Sprint

For Protein



- ✓ Direct protein measurement
- ✓ Safer than Kjeldahl with better results
- ✓ No hazardous chemicals
- ✓ AOAC approved methods (including 967.12, 930.29, & 930.33)
- ✓ Green method





Over 50,000 systems sold worldwide



CEM has been an ISO-certified facility since 1994



All systems serviced & supported by experts with an average of 15 years of experience



CEM invests 11% of annual revenue into R&D, the result... 11 R&D 100 awards



IQ/OQ/PQ Validation by certified CEM Technicians

“

Our commitment to you doesn't end when your system is shipped; it begins.

~Michael J. Collins
President & CEO, CEM

”

CEM Corporation:
PO Box 200
Matthews, NC 28106
United States
800-726-3331
704-821-7015
Fax: 704-821-7894
info@cem.com
www.cem.com

France: CEM µWave S.A.S.
Immeuble Ariane
Domaine Technologique de Saclay
4, rue Rene' Razel, 91892 ORSAY Cedex
33 (01) 69 35 57 80 • Fax: 33 (01) 60 19 64 91
info.fr@cem.com

Germany, Austria, Switzerland: CEM GmbH
Carl-Friedrich-Gauss-Str.9, 47475 Kamp-Lintfort
(49) 2842-9644-0 • Fax: (49) 2842-9644-11
info@cem.de

Ireland: CEM Technology (Ireland) Ltd.
Sky Business Centre, 9a Plato Business Park,
Damastown, Dublin 15
+353 (0) 1 885 1752 • Fax: +353 (0) 1 885 1601
info.ireland@cem.com

Italy: CEM S.R.L.
Via Dell' Artigianato, 6/8
24055 Cologno al Serio (Bg)
(39) 35-896224 • Fax: (39) 35-891661
info.srl@cem.com

Japan: CEM Japan K.K.
2-18-10 Takanawa, Minato-ku, Tokyo 108-0074
+81-3-5793-8542 • Fax: +81-3-5793-8543
info@cemjapan.co.jp

United Kingdom: CEM Microwave Technology Ltd.
2 Middle Slade, Buckingham Industrial Estate,
Buckingham MK181WA
(44) 1280-822873 • Fax: (44) 1280-822873
info.uk@cem.com

6,548,303 6,548,304 7,125,721 7,220,591 6,227,041 6,320,170 6,521,876 6,268,570 7,581,876
7,997,790 6,787,362 8,530,239 8,852,948 8,663,993 8,147,759 7,968,344 2031401B1 2031399B1

Worldwide patents issued and pending

©2016 CEM Corporation

SMART 6™, ORACLE™, Sprint®, iPower®, iDri™ are trademarks of CEM Corporation.

