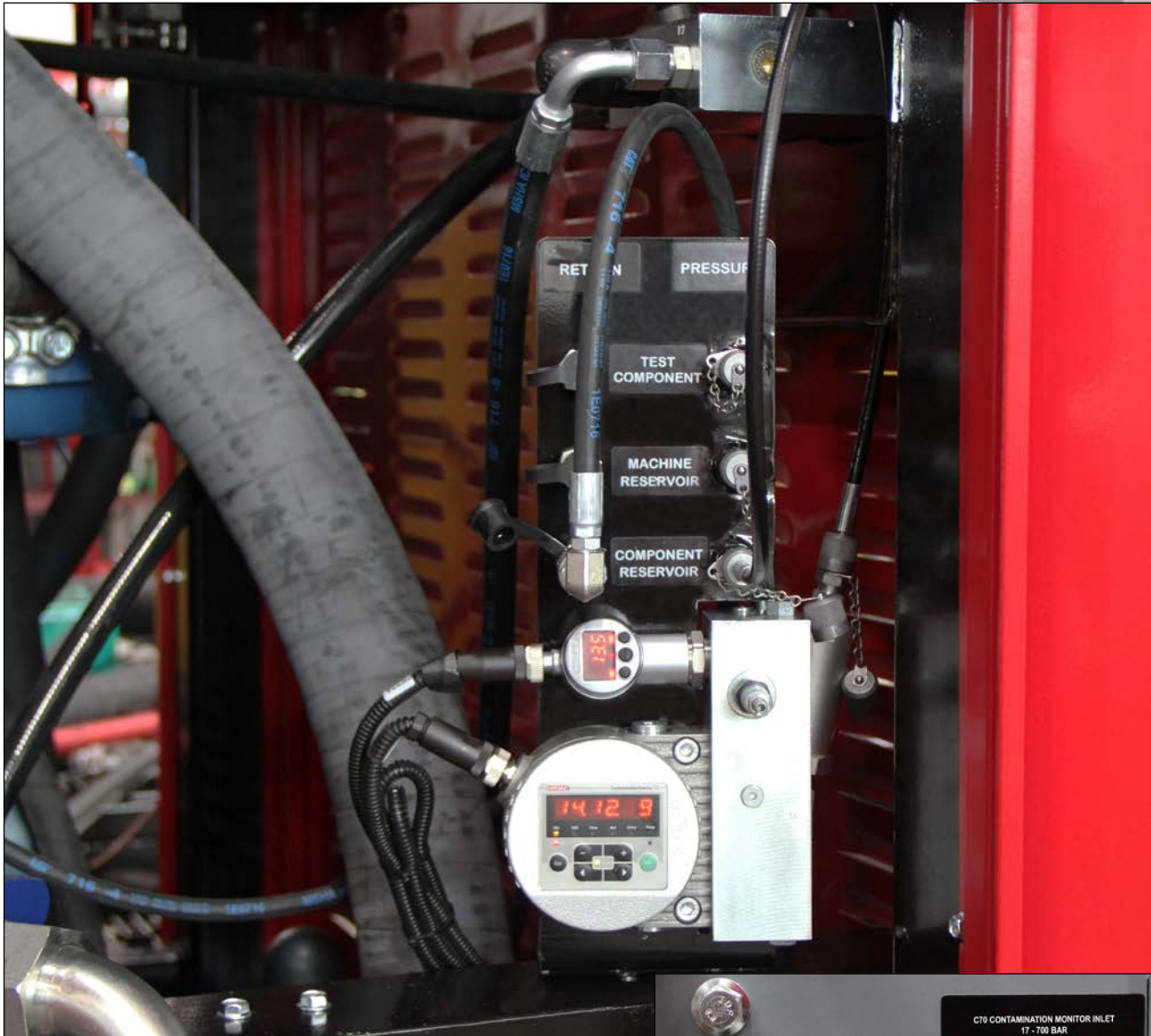




Contamination Monitoring / Hydraulic Test Center



For those who want to document test component cleanliness on test reports and want real time feedback on the cleanliness of their Hydraulic Test Center (HTC). The Contamination Monitoring accessory eliminates the delay of bottle sampling. The Contamination Monitoring accessory fully integrates into the HTC and offers real-time cleanliness level measurement from 1 of 3 different circuits. By moving two quick disconnects, the monitor can measure the machine oil reservoir, component oil reservoir, or the oil coming directly from the component under test.

Everything you need to succeed

The pressure range for measuring directly from the component under test is 250 to 7,251 psi (17.24 to 500 bar). The connections to a component under test are 1/8 in. (3.18 mm) ISO 15171-1 male nipple for return and pressure connection is Minemess 1620 test points M16 x 2.0 male nipple. Testing includes water content (relative to the degree of saturation) and ISO contamination level according to ISO 4406. Recommended calibration is every 36 months, LED light source increases sensor life, +/- 0.5 ISO code accuracy, fault monitoring on a real-time basis.

The Contamination Monitoring accessory includes measuring devices, bracketry and plumbing. This accessory is best purchased when ordering a new HTC however, it can be added later if needed. The estimated field installation time is 2 days (8 hours per day).

The screenshot displays a software interface for contamination monitoring. On the left, a vertical stack of red panels shows real-time data: H2OContam (12.3 %H2O), CmStatus (1), CmStatCode (0), CmStatByte (0), CmTemp (37.9 °C), and CmDrive (30.0 %). Below these is a 'Flow State' control panel with buttons for HIGH, OK+, OK-, and LOW. The central area features 'ISO 4406 Codes' with three buttons for 14.0 (CmISO4um), 12.0 (CmISO6um), and 9.0 (CmISO14um). To the right, 'SAE AS4059 (D) Codes' are shown with buttons for 1.2 (CmSAE_A), 0.0 (CmSAE_B), 0.0 (CmSAE_C), and 0.0 (CmSAE_D). Two tables are included: 'Table - ISO 4406' (Particle count / 100 ml) and 'Table - SAE AS 4059' (Maximum particle count / 100 ml).

Class	More Than	Up to (and including)	Class	More Than	Up to (and including)
0	0.00	1.00	15	16,000.00	32,000.00
1	1.00	2.00	16	32,000.00	64,000.00
2	2.00	4.00	17	64,000.00	128,000.00
3	4.00	8.00	18	128,000.00	250,000.00
4	8.00	16.00	19	250,000.00	500,000.00
5	16.00	32.00	20	500,000.00	1,000,000.00
6	32.00	64.00	21	1,000,000.00	2,000,000.00
7	64.00	128.00	22	2,000,000.00	4,000,000.00
8	128.00	250.00	23	4,000,000.00	8,000,000.00
9	250.00	500.00	24	8,000,000.00	16,000,000.00
10	500.00	1,000.00	25	16,000,000.00	32,000,000.00
11	1,000.00	2,000.00	26	32,000,000.00	64,000,000.00
12	2,000.00	4,000.00	27	64,000,000.00	130,000,000.00
13	4,000.00	8,000.00	28	130,000,000.00	250,000,000.00
14	8,000.00	16,000.00			

Size ISO 4406	Maximum particle count / 100 ml					
	> 1 um	> 5 um	> 15 um	> 25 um	> 50 um	> 100 um
Class ISO 11171	> 4 um _{eq}	> 6 um _{eq}	> 14 um _{eq}	> 21 um _{eq}	> 38 um _{eq}	> 70 um _{eq}
Size Coding	A	B	C	D	E	F
000	195	75	14	0	1	0
00	390	152	27	5	1	0
0	780	301	51	10	2	0
1	1,170	429	76	15	3	0
2	1,560	578	101	20	4	1
3	1,950	727	126	25	5	1
4	2,340	876	151	30	6	1
5	2,730	1,025	176	35	7	1
6	3,120	1,174	201	40	8	1
7	3,510	1,323	226	45	9	1
8	3,900	1,472	251	50	10	1
9	4,290	1,621	276	55	11	1
10	4,680	1,770	301	60	12	1
11	5,070	1,919	326	65	13	1
12	5,460	2,068	351	70	14	1

Contamination Monitoring Screenshot from DynPro₂ Data Acquisition and Control System

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