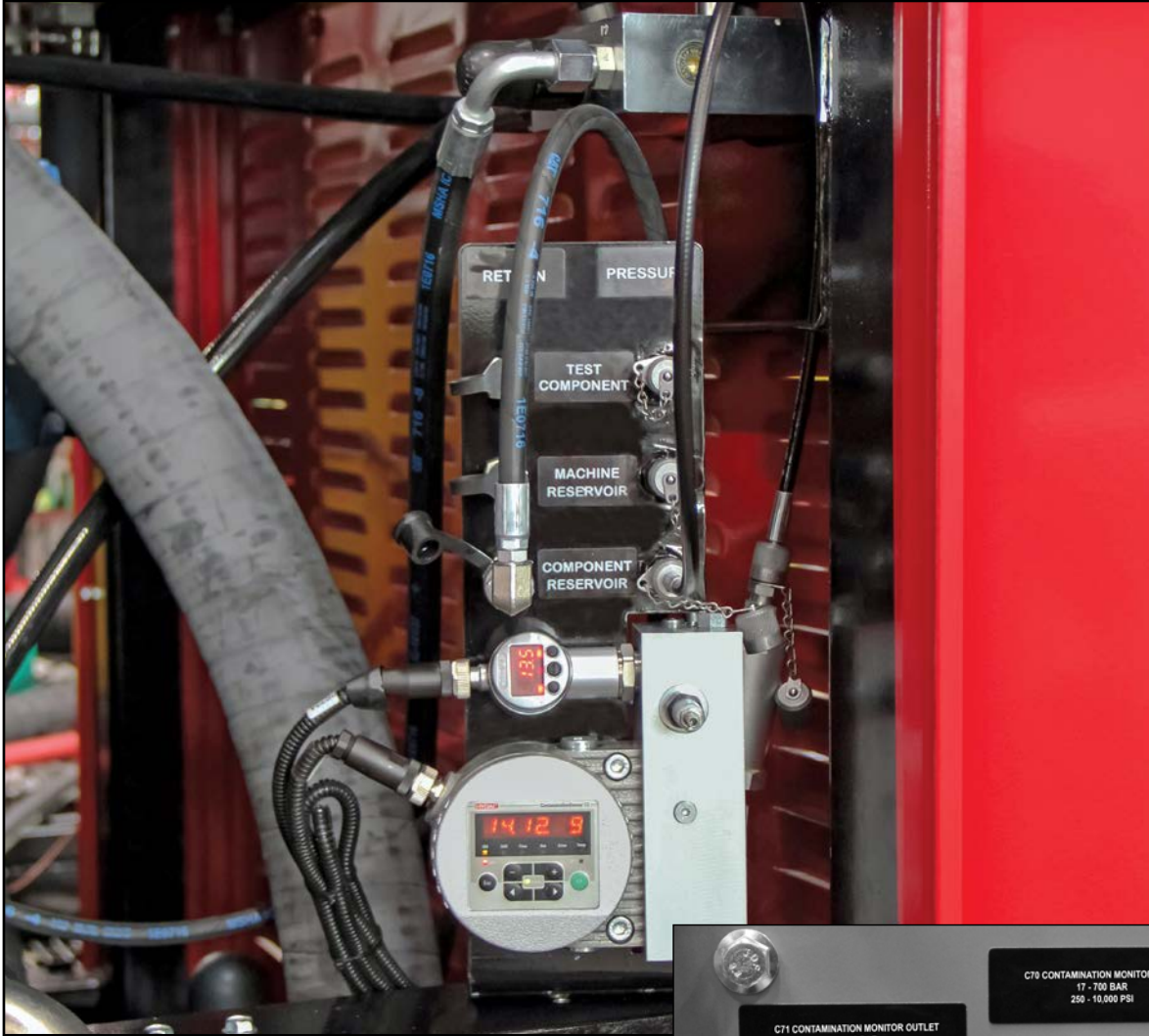




Contamination Monitoring / Hydraulic Test Center



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. The pressure range for measuring directly from the component under test is 250 to 7,251 psi (17.24 to 500 bar).

Everything you need to succeed

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 control interface with several data fields and two reference tables. On the left, a vertical stack of red boxes shows: 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: 14.0 (CmISO4um), 12.0 (CmISO6um), and 9.0 (CmISO14um). To the right of this is 'Table - ISO 4406' showing particle count ranges for various classes. Below the ISO codes are 'SAE AS4059 (D) Codes' with four buttons: 1.2 (CmSAE_A), 0.0 (CmSAE_B), 0.0 (CmSAE_C), and 0.0 (CmSAE_D). To the right of these is 'Table - SAE AS 4059' showing maximum particle counts for different size classes.

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 µm	> 5 µm	> 15 µm	> 25 µm	> 50 µm	> 100 µm
ISO 11171	> 4 µm _{eq}	> 6 µm _{eq}	> 14 µm _{eq}	> 21 µm _{eq}	> 38 µm _{eq}	> 70 µm _{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	54	10	2	0
1	1,560	609	108	20	4	0
2	3,120	1,220	217	39	7	1
3	6,240	2,440	432	76	13	2
4	12,500	4,880	864	151	26	4
5	25,000	9,750	1,720	306	55	8
6	50,000	19,500	3,420	612	106	16
7	100,000	38,900	6,920	1,220	212	31
8	200,000	77,900	13,900	2,450	424	64
9	400,000	156,000	27,700	4,900	848	128
10	800,000	311,000	55,100	9,800	1,690	256
11	1,600,000	622,000	111,000	19,600	3,380	512
12	3,200,000	1,250,000	222,000	39,200	6,780	1,020

Contamination Monitoring Screenshot from DynPro₂ Data Acquisition and Control System

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