

12.7.1 DESCRIPTION

As contamination control in oleodynamic systems is increasingly important, as it is the main cause of breakage, failure and early degradation of the components, EPE Italiana is pleased to announce this new service for all its customer. With a new system and cleanliness experts to bring accumulator cleaning to the highest level. We can deliver a ready to operate unit meeting even the most stringent requirements.

12.7.2 TECHNICAL DATA

SERVICE: all interior surface fully cleaned, flushed and factory sealed, ready for system commissioning

CLEANLINESS ACCORDING TO:

NAS 1638, ISO 4406-1999, AS4059E, ISO 11218

FLUSHING FLUIDS: selected for compatibility with your specified system fluid

CERTIFICATE: fully certified documentation delivered with each order

PROCEDURE: accredited to ISO 9001

INSTRUCTION: experienced qualified trained technicians

COST: cost-effective, fast turnaround, environmentally responsible, proven result

BENEFIT: extends the life of your system and components

12.7.3 HOW TO MEASURE THE CONTAMINATION

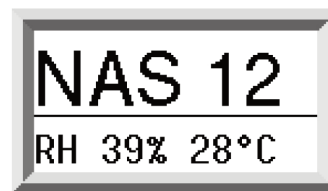
The level of contamination is measured by counting the number of particles of a certain size per unit volume of fluid and classified into classes of contamination, according to international standards.

Measurement of particles is given by "automatic particle counters" examining the fluid on line or on sample.

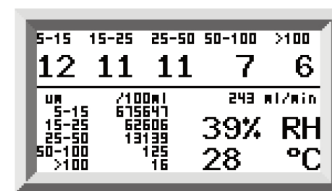
Measurements of samples should be undertaken in accordance with International standards.

The most used in the oleodynamic systems are:

- ISO 4406
- NAS 1638



Simple



Detailed

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12.7.4 CONTAMINATION CLASSES ACCORDING TO ISO 4406

Contamination class according to ISO 4406 is given by three numbers that indicate the number of particles per 100 ml, respectively with dimensions greater than 4 / 6 / 14 μ m

ISO class	Number of particles per 100 ml	
	Greater than	till
22	2.000.000	4.000.000
21	1.000.000	2.000.000
20	500.000	1.000.000
19	250.000	500.000
18	130.000	250.000
17	64.000	130.000
16	32.000	64.000
15	16.000	32.000
14	8.000	16.000
13	4.000	8.000
12	2.000	4.000
11	1.000	2.000
10	500	1.000
9	250	500
8	130	250

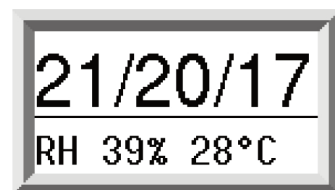
12.7c

Ex.: Code ISO 18/16/13

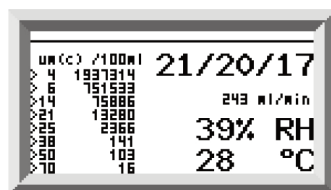
18 = from 130.000 to 250.000 particles $\geq 4\mu$ m in 100 ml

16 = from 32.000 to 64.000 particles $\geq 6\mu$ m in 100 ml

13 = from 4.000 to 8.000 particles $\geq 14\mu$ m in 100 ml



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12.7.5 CORRESPONDENCE BETWEEN CONTAMINATION CLASS ISO 4406 AND NAS 1638 AND THEIR APPLICATION AREAS

Contamination class ISO 4406	15/13/10	16/14/11	17/15/12	18/16/13	19/17/14	20/18/15	21/19/16	22/20/17
Contamination class NAS 1638	4	5	6	7	8	9	10	11
Application areas	Test-bench, aeronautics	Aeronautics, industrial robotics	Industrial robotics, precision machines tools	Industrial machines with high reliability, hydrostatic transmission	Industrial machines, earthmoving machines	Mobile machines	Machines for heavy industry	Agricultural machines, simple systems, not continuous use

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12.7.6 CERTIFICATE OF TESTING AND FLUSHING

In relation to customer specifications, is issued a test certificate indicating the degree of flushing required according to the applicable law.

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CERTIFICATO DI COLLAUDO N°. 4989 /A TEST REPORT No.					
Prodotto : Accumulatore a sacca Manufacture : Bladder Accumulator		Tipo : AS55P360CF8-XX Type :			
Disegno : A 1602-29 Drawing :		Famiglia : 220 Family :			
Pressione max di esercizio (PS) : 360 bar Max working pressure (PS):		Temp. di esercizio TS : - 20 + +80 °C Working temperature TS:			
Volume : 50 L Capacity :		Anno di fabbricazione : 2016 Year of Manufacture :			
Numero di fabbrica : 72127/.. Manufacturer serial no. :					
72127/1 = 1018744 Ps start 286,8 / Ps final 286,5 72127/2 = 1018748 Ps start 286,2 / Ps final 286,1 72127/3 = 1018740 Ps start 286,4 / Ps final 285,9 72127/4 = 1016734 Ps start 286,4 / Ps final 285,9 72127/5 = 1018767 Ps start 284,7 / Ps final 284,2		72127/6 = 1018731 Ps start 290,1 / Ps final 289,2 72127/7 = 1018735 Ps start 290,1 / Ps final 289,2 72127/8 = 1018742 Ps start 285,8 / Ps final 285,6 72127/9 = 1018741 Ps start 284,0 / Ps final 283,6 72127/10 = 1016786 Ps start 284,7 / Ps final 284,4			
OPERAZIONI DI COLLAUDO ESEGUITE IN ACCORDO ALLA PROCEDURA IO PROD 09 REV. 2 Testing operation executed according to procedure IO PROD 09 REV. 2					
1) ESAME VISIVO E DIMENSIONALE IN ACCORDO AL DIS. NR. A 1602-29 <i>Visual and dimensional test according to drawing No.</i>					
2) PROVA DI TENUTA A PRESSIONE <i>Nitrogen test (100%)</i>					
ESITO/Result:		Pressione di prova idrostatica (hydrostatic test pressure): 300 bar Fluido utilizzato per la prova idraulica: Azoto Hydraulic test medium: Nitrogen Tempo: 10 min Time: 10 min			
POS. 1) CONFORME <i>Up to drawing</i> POS. 2) NESSUNA PERDITA O DEFORMAZIONE RISRCONTRATA. <i>Leakages or deformations have not been evidenced.</i>					
RISULTATO : BUONO RESULT : Good					
Collaudo presenciato da: Test attended by:					
PMC		STATOIL		FABRICOM	
				EPE ITALIANA S.R.L. (IL RESPONSABILE DEL COLLAUDO) (Superintendent for the test)	
Milano, (Italy) 30/06/2016					
M CTR 03 REV.13					

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In the spirit of continuous improvement, our products may be changed.