



SEMI-Ultra High Purity Chemical Pumps for the Semiconductor Industry



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SEMI - ULTRA HIGH PURITY CHEMICAL PUMPS FOR THE SEMICONDUCTOR INDUSTRY



SEMI T with Pulsation Damper

SEMI H

SEMI E

SEMI S

GENERAL INFORMATION

The SEMI DMS pump series has been designed especially for the semiconductor industry. The assembly process of these unique products is carried out in a **CLASS 100 CLEAN ROOM**, involving double cleaning of the parts, testing with de-ionized water, and finally sealing in plastic foil.

All parts of the SEMI T and SEMI H pumps in contact with liquids are made of PTFE and TFM. The housing of the SEMI E pump is made of UPPE (ultra pure polyethylene).

With all SEMI pumps, the temperature limits and driving pressure are different. These are shown in the chart below:

Driving air pressure	6 bar	5 bar	4 bar	3 bar	2 bar
SEMI T : max. permissible temperature	100 °C	110 °C	120 °C	130 °C	130 °C
SEMI H : max. permissible temperature	100 °C	130 °C	150 °C	180 °C	200 °C
SEMI E : max. permissible temperature	70 °C	70 °C	70 °C	70 °C	70 °C
SEMI S : max. permissible temperature	130 °C	130 °C	130 °C	130 °C	130 °C

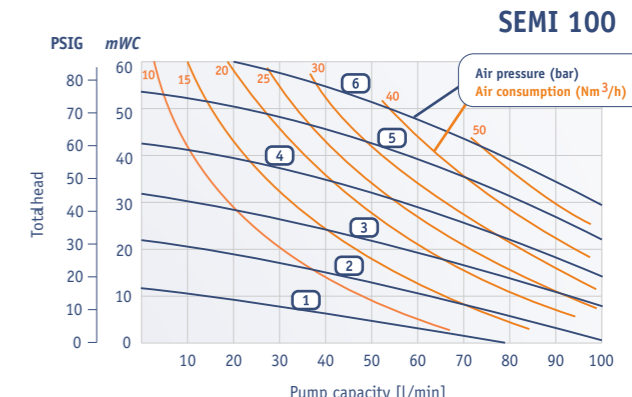
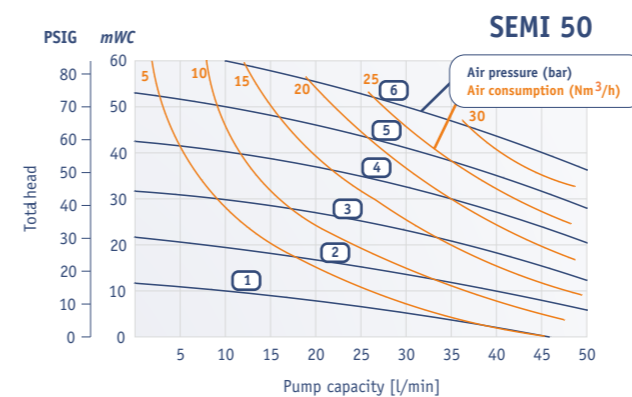
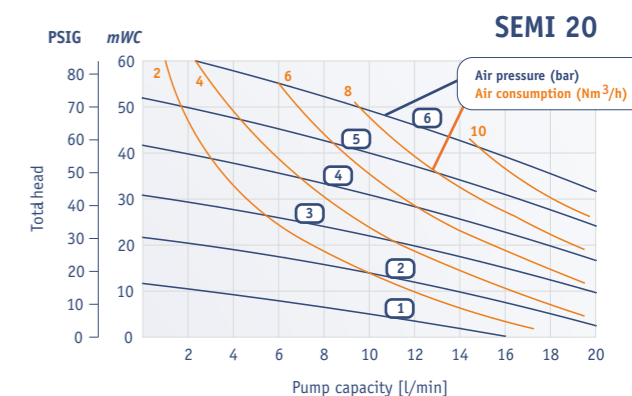
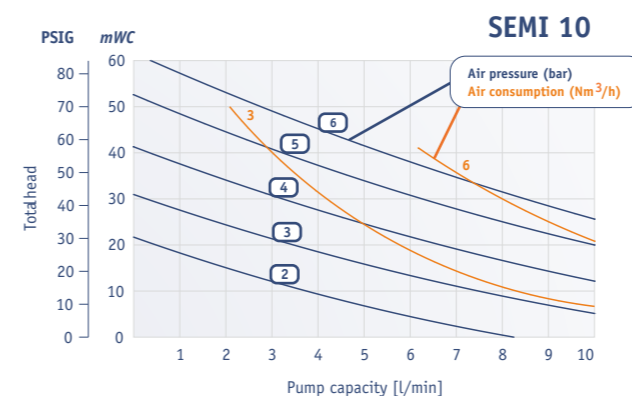
FEATURES

- no metal parts (even down to atomic scale)
- no elastomer o-ring seals
- no lubrication in air valve
- Class 100 Clean-Room assembly, tested with de-ionized water and double sealed package
- TFM diaphragms, robust and dependable
- 4 materials for different applications with max temp. 200°C
- machined from solid material on advanced CNC Machining and Turning Centre
- pulsation dampers, leak detection, electronic/pneumatic controls and monitoring available for all sizes
- easy 'preventive maintenance planning' with just 40% of spare parts compared to competitors

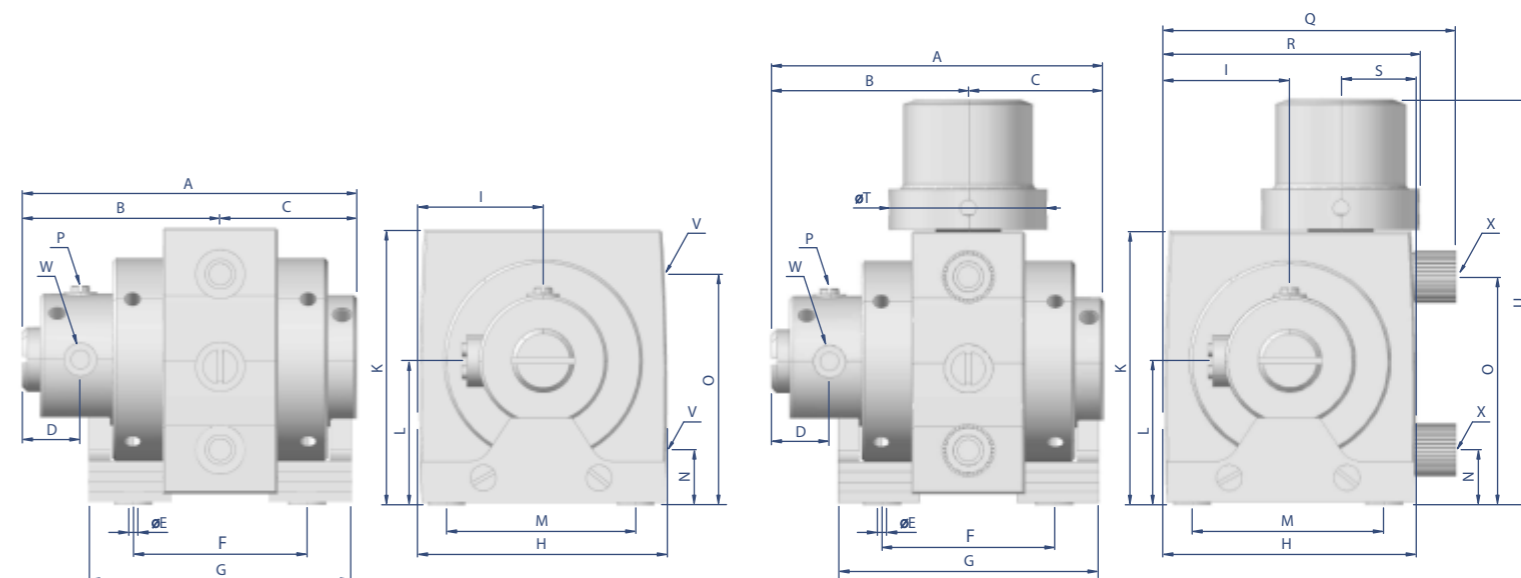
SEMI PUMPS SUMMARY

Model:	SEMI T
Materials:	center housing TFM/PTFE; side housings UPPE
Pump sizes:	10, 20, 50, 100
Products:	acids and caustics
Model:	SEMI H
Materials:	center housing TFM/PTFE; side housings PTFE
Pump sizes:	10, 20
Products:	hot applications with acids and caustics
Model:	Semi E
Materials:	center housing UPPE; side housings UPPE
Pump sizes:	10, 20, 50, 100
Products:	slurries
Model:	SEMI S
Materials:	center housing SS 316L; side housings PTFE cond.
Pump sizes:	20, 50
Products:	solvents

FLOW CURVES



DIMENSIONS



mm	A	B	C	D	E	F	G	H	I	K	L	M	N	O	Q	R	S	T	U	V	W	X
SEMI 10	184,0	112,0	72,0	28,0	10,5	95,0	145,0	114,0	57,0	133,0	68,0	79,5	37,0	105,0	155,0	155,0	36,0	110,0	245,0	3/8" NPT	1/4" NPT	3/8"
SEMI 20	207,0	109,0	98,0	35,0	10,5	109,0	163,0	154,0	75,0	172,0	91,0	115,0	32,0	139,0	200,0	163,0	46,0	110,0	287,0	1/2" NPT	1/4" NPT	1/2"
SEMI 50	255,0	157,0	98,0	46,0	19,0	113,0	195,0	207,0	104,0	215,0	110,0	165,0	33,0	177,0	258,0	224,0	59,0	150,0	346,0	1" NPT	1/4" NPT	1"
SEMI 100	315,0	196,0	119,0	57,0	19,0	138,0	238,0	269,0	135,0	267,0	138,0	225,0	39,0	223,0	322,0	298,0	80,0	213,0	428,0	1 1/4" NPT	1/4" NPT	1 1/4"

in	A	B	C	D	E	F	G	H	I	K	L	M	N	O	Q	R	S	T	U	V	W	X
SEMI 10	7,2	4,4	2,8	1,1	0,4	3,7	5,7	4,5	2,2	5,2	2,7	3,1	1,5	4,1	6,1	6,1	1,4	4,3	9,6	3/8" NPT	1/4" NPT	3/8"
SEMI 20	8,1	4,3	3,9	1,4	0,4	4,3	6,4	6,1	3,0	6,8	3,6	4,5	1,3	5,5	7,9	6,4	1,8	4,3	11,3	1/2" NPT	1/4" NPT	1/2"
SEMI 50	10,0	6,2	3,9	1,8	0,7	4,4	7,7	8,1	4,1	8,5	4,3	6,5	1,3	7,0	10,2	8,8	2,3	5,9	13,6	1" NPT	1/4" NPT	1"
SEMI 100	12,4	7,7	4,7	2,2	0,7	5,4	9,4	10,6	5,3	10,5	5,4	8,9	1,5	8,8	12,7	11,7	3,1	8,4	16,9	1 1/4" NPT	1/4" NPT	1 1/4"