

Material Composition of Metallic Wetted Parts

Percentage composition by weight. Maximum percentage shown unless specified otherwise.



Stainless Steels	Material Type	ASTM No.	C	Mn	P	S	Si	Cr	Ni	Mo	N	Al	Cu	Other	Fe	
	316	A666	0.080	2.00	0.045	0.03	0.75	16.0-18.0	10.0-14.0	2.0-3.0	0.00	--	--	--	--	Balance
		A276	0.080	2.00	0.045	0.03	1.00	16.0-18.0	10.0-14.0	2.0-3.0	0.10	--	--	--	--	Balance
	316L	A666	0.030	2.00	0.045	0.03	0.75	16.0-18.0	10.0-14.0	2.0-3.0	0.00	--	--	--	--	Balance
		A240	0.030	2.00	0.045	0.03	0.75	16.0-18.0	10.0-14.0	2.0-3.0	0.10	--	--	--	--	Balance
		A276	0.030	2.00	0.045	0.03	1.00	16.0-18.0	10.0-14.0	2.0-3.0	0.10	--	--	--	--	Balance
		A269	0.035	2.00	0.04	0.03	0.75	16.0-18.0	10.0-15.0	2.0-3.0	0.00	--	--	--	--	Balance
	304	A743 CF3M	0.030	1.50	0.04	0.04	1.50	17.0-21.0	9.0-13.0	2.0-3.0	0.00	--	--	--	--	Balance
		A276	0.08	2.00	0.045	0.03	1.00	18.0-20.0	8.0-10.5	0.00	0.10	--	--	--	--	Balance
	304L	A276	0.03	2.00	0.045	0.03	1.00	16.0-18.0	8.0-12.0	0.00	0.10	--	--	--	--	
		A632	0.04	2.00	0.04	0.03	0.75	18.0-20.0	8.0-11.0	--	--	--	--	--	--	Balance
		A269 (tubing less than Ø0.5)	0.04	2.00	0.04	0.03	0.75	18.0-20.0	8.0-13.0	0.00	0.00	--	--	--	--	Balance
	303	A582	0.15	2.00	0.20	0.15	1.00	17.0-19.0	8.0-10.0	0.00	0.00	--	--	--	--	Balance
	17-7 PH	A313-13	0.09	1.00	0.040	0.030	1.00	16.0-18.0	6.5-7.75	--	--	0.75-1.50	--	--	--	Balance
	15-5 PH	A564	0.07	1.00	0.040	0.030	1.00	14.0-15.5	3.50-5.50	--	--	--	2.5-4.5	Cb+Ta 0.15 to 0.45	--	Balance
440C	AISI Type 440C	0.95-1.20	1.00	0.04	0.03	1.0	16.00-18.00	--	0.75	--	--	--	--	--	--	

Components
Diaphragms
Pressure connections
Diaphragms
Bellows flanges
Pressure connections, Bellows, Separable wells
Bellows, Bellows Shells
Cast bellows housings
Pressure connections, Bellows, Separable wells
Pressure connections, Bellows, Separable wells
Bulb and capillary tubing
Bulb and capillary tubing
Pressure connections, Pistons
Springs
Diaphragms
Thermal assembly balls

Copper Alloys	Material Type	ASTM No.	Cu	Sn	P	Pb	Fe	Zn	Other
	Phosphor Bronze Grade A, 5% Tin C51000	B103	Balance	4.2-5.8	0.03-0.35	0.05	0.10	0.30	--
	Brass C36000	B16	60.0-63.0	--	--	2.5-3.7	0.35	Balance	0.5
	Brass Alloy 240	B36	78.5-81.5	--	--	0.05	0.05	Balance	--
	Brass Alloy 260	B36	68.5-71.5	--	--	0.07	0.05	Balance	--
	Brass Alloy 360	B16	60.0-63.0	--	--	2.5-3.7	0.35	Balance	--

Components
Bellows
Pressure Connections
Bellows, Bellows shells
Bellows housings
Fittings

Aluminum Alloys	Material Type	ASTM No.	Si	Fe	Cu	Mn	Mg	Ni	Cr	Zn	Ti	Sn	Bi	Pb	Other	Al	
	Aluminum 2011	B211	0.4	0.7	5.0-6.0	0.00	0.00	--	0.00	0.00	0.3	--	--	0.2-0.6	0.2-0.6	0.05 max. each, 0.15 total	Balance
	Aluminum 2024	B209	0.50	0.5	3.8-4.9	0.3-0.9	1.2-1.8	--	0.1	0.1	0.25	0.15	--	--	--	0.05 max. each, 0.15 total	Balance
		B221	0.50	0.5	3.8-4.9	0.3-0.9	1.2-1.8	--	0.1	0.1	0.25	0.15	--	--	--	0.05 max. each, 0.15 total	Balance
	Aluminum 5052-H32	B209	0.25	0.40	0.10	0.10	2.2-2.8	--	0.15-0.35	0.10	--	--	--	--	--	0.15	Balance
	Alloy 360	B85	9.0-10.0	2.0	0.6	0.35	0.40-0.6	0.50	--	--	0.50	--	0.15	--	--	0.25	Balance
	Alloy 380	B85	7.5-9.5	2.0	3.0-4.0	0.50	0.10	0.50	--	--	0.30	--	0.15	--	--	0.50	Balance

Components
O-ring retaining bushings
Diaphragm washers
Diaphragm plates
Diaphragm washers
Castings
Castings

Nickel Alloys	Material Type	ASTM No.	C	Cr	Mo	Fe	W	Ni	Cu	S	Si	Mn	Co	P	V	Other	
	Hastelloy C276 N10276	B574	0.010	14.5-16.5	15.0-17.0	4.0-7.0	3.0- 4.5	Balance	--	0.03	0.03	0.08	1.0	2.5	0.04	0.35	--
		B575	0.010	14.5-16.5	15.0-17.0	4.0-7.0	3.0-4.5	Balance	--	0.03	0.03	0.08	1.0	2.5	0.04	0.35	--
	Monel 400	B127	0.3	--	--	2.5	--	63 (min.)	28.0-34.0	0.024	0.024	0.5	2.0	--	--	--	Balance
B164		0.3	--	--	2.5	--	63 (min.)	28.0-34.0	0.024	0.024	0.5	2.0	--	--	--	Balance	

Components
Pressure connections
Diaphragms
Diaphragms
Pressure connections

To inquire about the Material Composition of Metallic Wetted Parts for specific UE product models, please email InsideSales@ueonline.com