

# Titeflex R270 (510 SERIES)

**SERIES:** 510  
**SPECIFICATION:** None  
**BRAID:** Nomex®  
**INNERCORE:** PTFE Convoluted  
**QUALIFICATIONS:** Qualified to numerous aerospace application specific requirements.

510 Series: low-pressure PTFE hose with non-metallic braid for specialized aerospace applications. The hose consists of convoluted (tape wrap) PTFE innercore, similar to the 410 Series, except the 510 Series is reinforced with a braid of Nomex® instead of CRES. This construction provides an exceptionally tight bend radius, and is light weight. Standard fittings are aluminum and CRES. Operating pressures range from 300 PSI (21 Bar) in the smaller diameters to 200 PSI (14 Bar) in the larger diameters. Fire protection is available with slip-on AS1072 firesleeve. Popular applications for the 510 Series include breathing oxygen, and electronic cooling fluids. Hybrid assemblies combining flex hose with multi-bend tube are an Aero-Hose, Corp. specialty and provide improved vibration dampening, ease of installation and maintenance over strictly rigid tube.



## ENGLISH

HOSE SIZE	OPERATING PRESSURE	HOSE ID (MIN) in	HOSE OD (MIN) in	HOSE OD (MAX) in	BRAIDED HOSE WT/1/ lb/in	BEND RADIUS (MIN)/2/ in	PROOF PRESSURE	NEGATIVE PRESSURE	ROOM TEMP BURST (MIN)	HIGH TEMP BURST (MIN)
	psi						psi	in HG	psi	psi
4	300	0.28	0.44	0.465	0.004	0.5	600	28	1,200	900
6	300	0.362	0.54	0.57	0.005	0.75	600	28	1,200	900
8	250	0.518	0.74	0.77	0.01	1	500	28	1,000	750
10	250	0.605	0.825	0.86	0.011	1.5	500	28	1,000	750
12	200	0.77	1.055	1.09	0.015	2	400	28	800	600
16	200	0.985	1.27	1.31	0.02	3	400	9	800	600

### NOTES

/1/ Over minimum 12 inch length

/2/ Inside of bend



## METRIC

HOSE SIZE	OPERATING PRESSURE	HOSE ID (MIN)	HOSE OD (MIN)	HOSE OD (MAX)	BRAIDED HOSE WT/1/	BEND RADIUS (MIN)/2/	PROOF PRESSURE	NEGATIVE PRESSURE	ROOM TEMP BURST (MIN)	HIGH TEMP BURST (MIN)
	bar	mm	mm	mm	g/m	mm	bar	mm Hg	bar	bar
4	21	7.1	11.2	11.8	67	12.7	41	711	83	63
6	21	9.2	13.7	14.5	91	19.1	41	711	83	63
8	17	13.2	18.8	19.6	185	25.4	34	711	69	52
10	17	15.4	221	21.8	202	38.1	34	711	69	52
12	14	19.6	26.8	27.7	274	50.8	28	711	55	41
16	14	25	32.3	33.3	357	76.2	28	217	55	41

### NOTES

/1/ Over minimum 305mm length

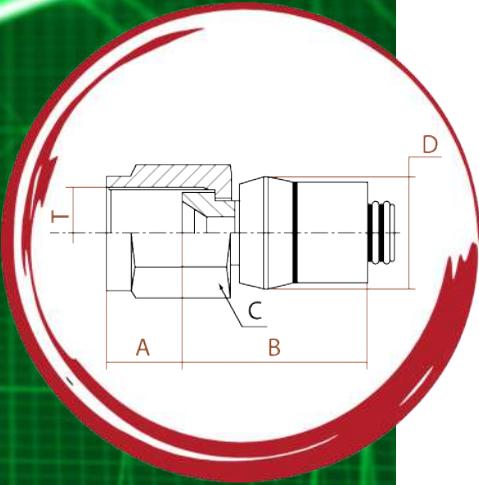
/2/ Inside of bend

# Titeflex R270 (510 SERIES) Flared (JIC) Fittings

## ENGLISH-INCHES

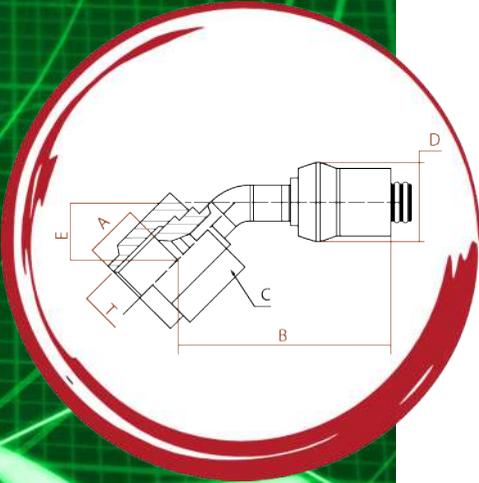
### STRAIGHT FLARED FITTINGS - MATES WITH AS33656/AS33395 & AS33657/AS4396

HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	WEIGHT (LB) CRES	WEIGHT (LB) ALUM
4	Y40004-39	7/16-20	0.372	1.050	0.562	0.550	NA	0.06	0.02
6	Y40006-39	9/16-18	0.375	1.280	0.688	0.650	NA	0.10	0.03
8	Y40008-39	3/4-16	0.438	1.440	0.875	0.860	NA	0.16	0.06
10	Y40010-39	7/8-14	0.515	1.580	1.000	0.950	NA	0.25	0.09
12	Y40012-39	1-1/16-12	0.562	1.740	1.250	1.280	NA	0.34	0.12
16	Y40016-39	1-5/16-12	0.620	1.790	1.500	1.470	NA	0.49	0.17



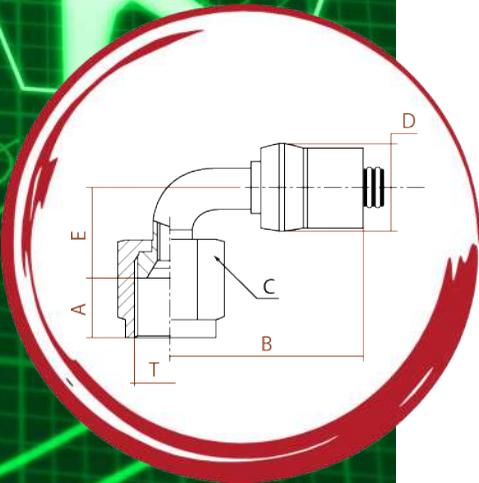
### 45° ELBOW FLARED FITTINGS - MATES WITH AS33656/AS33395 & AS33657/AS4396

HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	WEIGHT (LB) CRES	WEIGHT (LB) ALUM
4	Y40104-39	7/16-20	0.372	1.440	0.562	0.550	0.347	0.06	0.02
6	Y40106-39	9/16-18	0.375	1.860	0.688	0.650	0.471	0.10	0.03
8	Y40108-39	3/4-16	0.438	2.180	0.875	0.860	0.572	0.18	0.06
10	Y40110-39	7/8-14	0.515	2.420	1.000	0.950	0.643	0.28	0.10
12	Y40112-39	1-1/16-12	0.562	2.770	1.250	1.280	0.68	0.40	0.14
16	Y40116-39	1-5/16-12	0.620	3.050	1.500	1.470	0.79	0.60	0.21



### 90° ELBOW FLARED FITTINGS - MATES WITH AS33656/AS33395 A & AS33657/AS4396

HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	WEIGHT (LB) CRES	WEIGHT (LB) ALUM
4	Y40204-39	7/16-20	0.372	1.240	0.562	0.550	0.642	0.06	0.02
6	Y40206-39	9/16-18	0.375	1.560	0.688	0.650	0.89	0.11	0.04
8	Y40208-39	3/4-16	0.438	1.850	0.875	0.860	1.107	0.19	0.07
10	Y40210-39	7/8-14	0.515	2.000	1.000	0.950	1.281	0.30	0.10
12	Y40212-39	1-1/16-12	0.562	2.530	1.250	1.280	1.405	0.42	0.14
16	Y40216-39	1-5/16-12	0.620	2.870	1.500	1.470	1.708	0.66	0.21



#### NOTES:

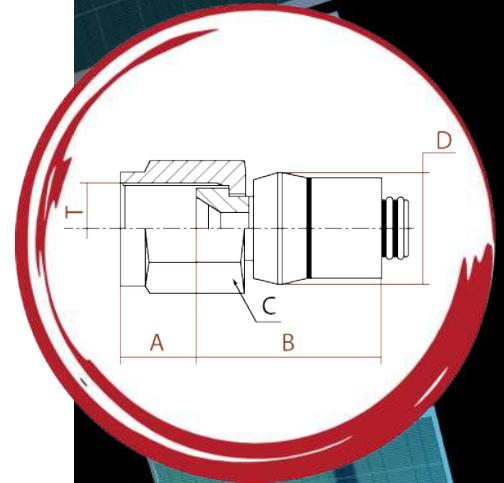
Fitting material code: "-39"=CRES; "-40"=Aluminum

# Titeflex R270 (510 SERIES) Flared (JIC) Fittings

## METRIC-MILLIMETERS

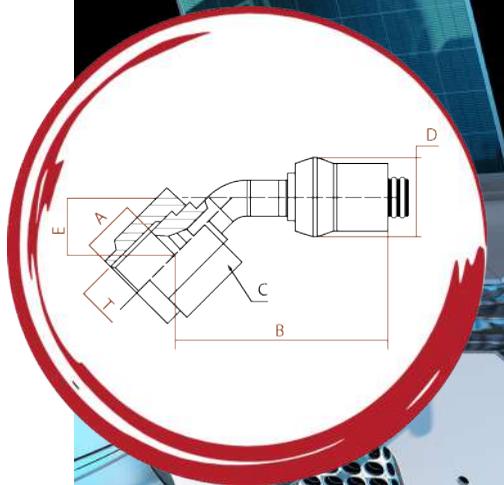
### STRAIGHT FLARED FITTINGS - MATES WITH AS33656/AS33395 & AS33657/AS4396

HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	WEIGHT (GRAM) CRES	WEIGHT (GRAM) ALUM
4	Y40004-39	7/16-20	9.4	26.7	14.3	14.0	NA	26.0	9.0
6	Y40006-39	9/16-18	9.5	32.5	17.5	16.5	NA	45.0	15.5
8	Y40008-39	3/4-16	11.1	36.6	22.2	21.8	NA	73.0	25.5
10	Y40010-39	7/8-14	13.1	40.1	25.4	24.1	NA	114.0	39.5
12	Y40012-39	1-1/16-12	14.3	44.2	31.8	32.5	NA	155.0	53.5
16	Y40016-39	1-5/16-12	15.7	45.5	38.1	37.3	NA	222.0	76.5



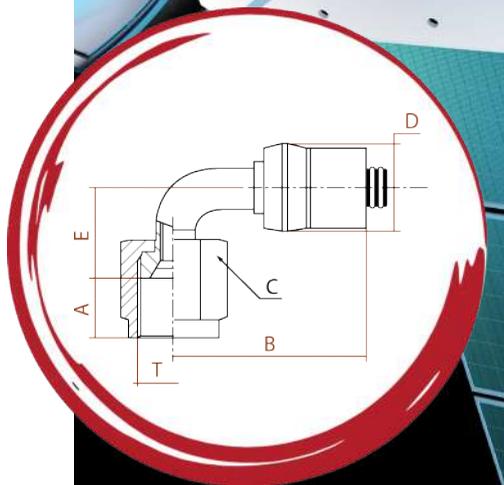
### 45° ELBOW FLARED FITTINGS - MATES WITH AS33656/AS33395 & AS33657/AS4396

HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	WEIGHT (GRAM) CRES	WEIGHT (GRAM) ALUM
4	Y40104-39	7/16-20	9.4	36.6	14.3	14.0	8.8	27.5	9.5
6	Y40106-39	9/16-18	9.5	47.2	17.5	16.5	12.0	45.5	15.8
8	Y40108-39	3/4-16	11.1	55.4	22.2	21.8	14.5	80.0	27.5
10	Y40110-39	7/8-14	13.1	61.5	25.4	24.1	16.3	127.0	44.0
12	Y40112-39	1-1/16-12	14.3	70.4	31.8	32.5	17.3	180.0	62.0
16	Y40116-39	1-5/16-12	15.7	77.5	38.1	37.3	20.1	272.0	93.5



### 90° ELBOW FLARED FITTINGS - MATES WITH AS33656/AS33395 & AS33657/AS4396

HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	WEIGHT (GRAM) CRES	WEIGHT (GRAM) ALUM
4	Y40204-39	7/16-20	9.4	31.5	14.3	14.0	16.3	27.5	9.5
6	Y40206-39	9/16-18	9.5	39.6	17.5	16.5	22.6	51.0	17.5
8	Y40208-39	3/4-16	11.1	47.0	22.2	21.8	28.1	85.0	29.5
10	Y40210-39	7/8-14	13.1	50.8	25.4	24.1	32.5	134.0	46.0
12	Y40212-39	1-1/16-12	14.3	64.3	31.8	32.5	35.7	190.0	65.5
16	Y40216-39	1-5/16-12	15.7	72.9	38.1	37.3	43.4	298.0	102.5



#### NOTES:

Fitting material code: "-39"=CRES; "-40"=Aluminum

# Titeflex R270 (510 SERIES) Flareless (NAS) Fittings

## ENGLISH-INCHES

### STRAIGHT FLARELESS FITTINGS - MATES WITH AS33514/AS33515 & AS4375/AS4377

HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	GAGE POINT (F)	WEIGHT (LB) CRES	WEIGHT (LB) ALUM
4	Y40404-30	7/16-20	0.320	1.110	0.562	0.550	NA	0.155	0.06	0.02
6	Y40406-30	9/16-18	0.326	1.330	0.688	0.650	NA	0.164	0.10	0.04
8	Y40408-30	3/4-16	0.368	1.520	0.875	0.860	NA	0.189	0.17	0.1
10	Y40410-30	7/8-14	0.396	1.710	1.000	0.950	NA	0.201	0.27	0.1
12	Y40412-30	1-1/16-12	0.421	1.890	1.250	1.280	NA	0.228	0.37	0.1
16	Y40416-30	1-5/16-12	0.425	2.000	1.500	1.470	NA	0.297	0.55	0.2

### 45° ELBOW FLARELESS FITTINGS - MATES WITH AS33514/AS33515 & AS4375/AS4377

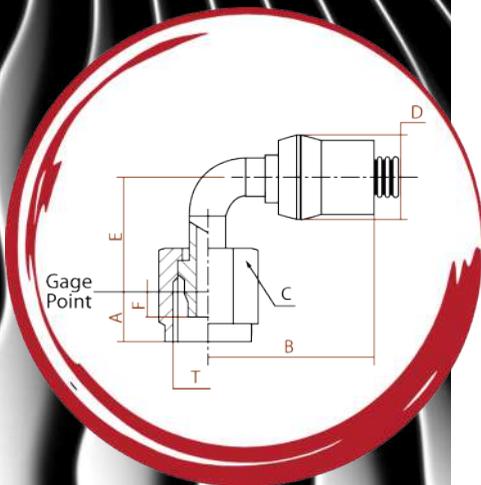
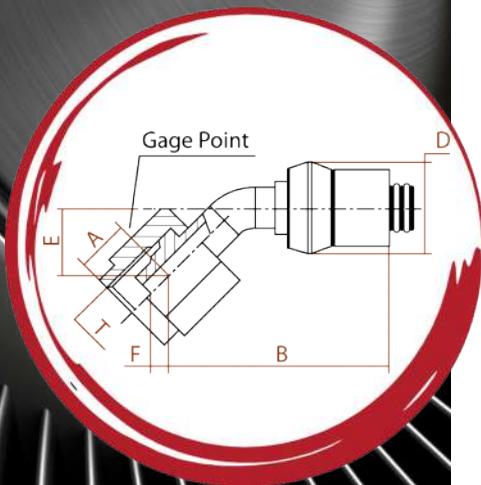
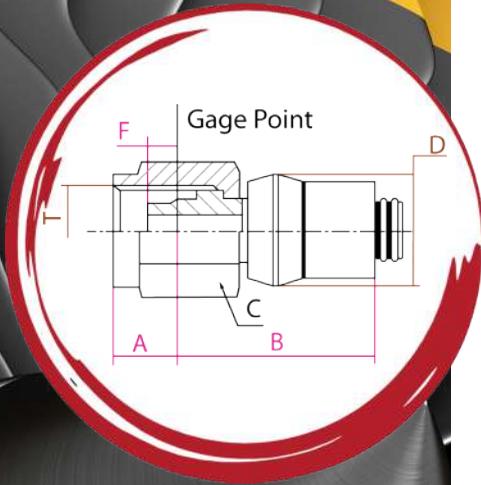
HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	GAGE POINT (F)	WEIGHT (LB) CRES	WEIGHT (LB) ALUM
4	Y40504-30	7/16-20	0.320	1.520	0.562	0.550	0.419	0.110	0.07	0.03
6	Y40506-30	9/16-18	0.326	1.930	0.688	0.650	0.544	0.116	0.11	0.04
8	Y40508-30	3/4-16	0.368	2.160	0.875	0.860	0.602	0.134	0.18	0.1
10	Y40510-30	7/8-14	0.396	2.540	1.000	0.950	0.735	0.142	0.28	0.1
12	Y40512-30	1-1/16-12	0.421	2.870	1.250	1.280	0.735	0.161	0.43	0.2
16	Y40516-30	1-5/16-12	0.425	3.190	1.500	1.470	0.936	0.210	0.65	0.2

### 90° ELBOW FLARELESS FITTINGS - MATES WITH AS33514/AS33515 & AS4375/AS4377

HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	GAGE POINT (F)	WEIGHT (LB) CRES	WEIGHT (LB) ALUM
4	Y40604-30	7/16-20	0.320	1.240	0.562	0.550	0.744	0.155	0.07	0.03
6	Y40606-30	9/16-18	0.326	1.630	0.688	0.650	0.995	0.164	0.12	0.04
8	Y40608-30	3/4-16	0.368	1.850	0.875	0.860	1.149	0.189	0.20	0.1
10	Y40610-30	7/8-14	0.396	2.190	1.000	0.950	1.411	0.201	0.31	0.1
12	Y40612-30	1-1/16-12	0.421	2.610	1.250	1.280	1.485	0.228	0.45	0.2
16	Y40616-30	1-5/16-12	0.425	3.030	1.500	1.470	1.914	0.297	0.73	0.3

#### NOTES:

Fitting material code: "-30"=CRES; "-31"=Aluminum

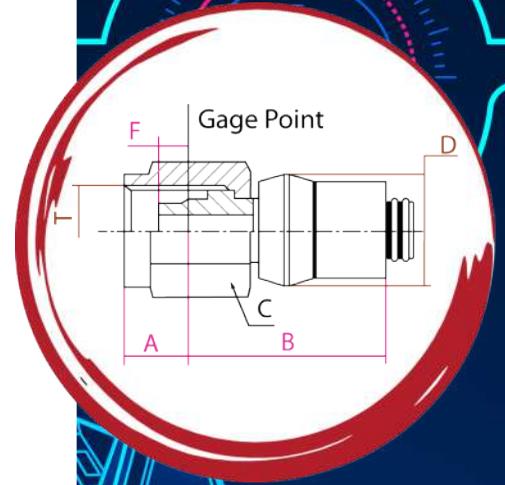


# Titeflex R270 (510 SERIES) Flareless (NAS) Fittings

## METRIC-MILLIMETERS

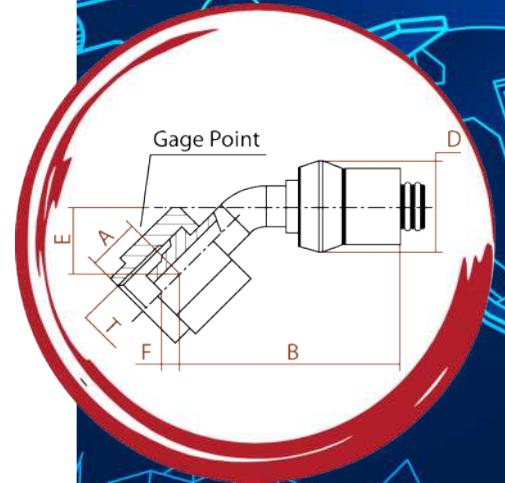
### STRAIGHT FLARELESS FITTINGS - MATES WITH AS33514/AS33515 & AS4375/AS4377

HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	GAGE POINT (F)	WEIGHT (GRAM) CRES	WEIGHT (GRAM) ALUM
4	Y40404-30	7/16-20	8.1	28.2	14.3	14.0	NA	3.937	28.0	9.0
6	Y40406-30	9/16-18	8.3	33.8	17.5	16.5	NA	4.166	47.5	16.0
8	Y40408-30	3/4-16	9.3	38.6	22.2	21.8	NA	4.801	79.0	27.0
10	Y40410-30	7/8-14	10.1	43.4	25.4	24.1	NA	5.105	122.5	40.5
12	Y40412-30	1-1/16-12	10.7	48.0	31.8	32.5	NA	5.791	167.5	59.0
16	Y40416-30	1-5/16-12	10.8	50.8	38.1	37.3	NA	7.544	251.0	86.0



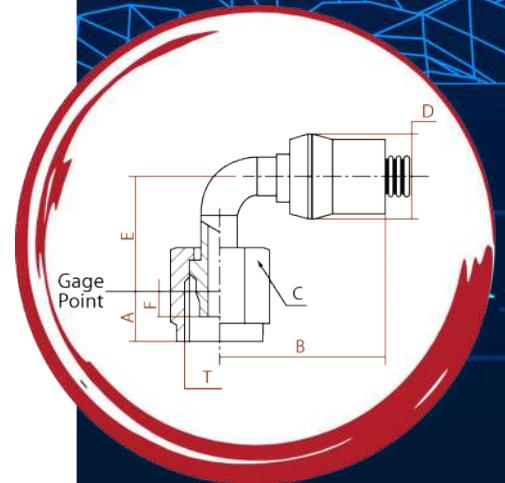
### 45° ELBOW FLARELESS FITTINGS - MATES WITH AS33514/AS33515 & AS4375/AS4377

HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	GAGE POINT (F)	WEIGHT (GRAM) CRES	WEIGHT (GRAM) ALUM
4	Y40504-30	7/16-20	8.1	38.6	14.3	14.0	10.6	2.794	31.5	11.5
6	Y40506-30	9/16-18	8.3	49.0	17.5	16.5	13.8	2.946	50.0	18.0
8	Y40508-30	3/4-16	9.3	54.9	22.2	21.8	15.3	3.404	81.5	29.5
10	Y40510-30	7/8-14	10.1	64.5	25.4	24.1	18.7	3.607	129.0	45.5
12	Y40512-30	1-1/16-12	10.7	72.9	31.8	32.5	18.7	4.089	195.0	68.0
16	Y40516-30	1-5/16-12	10.8	81.0	38.1	37.3	23.8	5.334	295.4	102.0



### 90° ELBOW FLARELESS FITTINGS - MATES WITH AS33514/AS33515 & AS4375/AS4377

HOSE SIZE	PART NUMBER	NUT THREAD SIZE (T)	NUT ENGAGEMENT LENGTH (A)	REACH MAX (B)	NUT SIZE (C)	COLLAR HEX SIZE (D)	DROP (E)	GAGE POINT (F)	WEIGHT (GRAM) CRES	WEIGHT (GRAM) ALUM
4	Y40604-30	7/16-20	8.1	31.5	14.3	14.0	18.9	3.937	31.5	11.5
6	Y40606-30	9/16-18	8.3	41.4	17.5	16.5	25.3	4.166	54.5	18.0
8	Y40608-30	3/4-16	9.3	47.0	22.2	21.8	29.2	4.801	88.5	31.5
10	Y40610-30	7/8-14	10.1	55.6	25.4	24.1	35.8	5.105	140.0	50.0
12	Y40612-30	1-1/16-12	10.7	66.3	31.8	32.5	37.7	5.791	204.0	70.0
16	Y40616-30	1-5/16-12	10.8	77.0	38.1	37.3	48.6	7.544	333.0	115.5



#### NOTES:

Fitting material code: "-30"=CRES; "-31"=Aluminum