

HEAVY DUTY

MANUFACTURING, INC.

EXHAUST CATALOG

QUALITY, PRICE AND SERVICE
YOU CAN COUNT ON

2024 CATALOG



Address: 1605 Indian Brook Way • Suite 500 • Norcross, Georgia 30093
Phone: 800.241.0551 • Website: heavydutymfg.com



Terms and Conditions

Revised 01.01.20

Quantity

Sold in Standard Cartons only (a 10% surcharge will be added for broken case quantities).

Opening Orders

Minimum opening order amount \$2500.

Minimum reorder amount \$50.00

Terms

Net 30 days with approved credit (All export shipments to be paid in U.S. dollars).

Credit

All orders will be shipped COD, or cash in advance, unless an open account has been established.

Freight – Continental USA only

All orders over.....\$1500.00

Freight – Canada Only

All orders over.....\$2500.00

Freight – Export

Freight Collect – (All shipping costs, including, duties, brokerage fees, drayage, etc. will be at purchaser's cost).

Shipping Locations

Main Warehouse – Norcross, GA

Shipping Errors

Only merchandise shipped in error will be exchanged or qualify for a credit. Goods must be returned prepaid within 30 days of receipt with a Return Goods Authorization (RGA). HDM has the right to inspect goods prior to shipment for credit. Upon acceptance for responsibility by HDM, all shipping charges will be credited. The merchandise must be carefully wrapped and boxed to prevent damage. Ship freight prepaid to HDM (location of shipping destination to be determined by a HDM factory representative only).

Return Policy

Only merchandise returned within 30 days of shipment will apply to this return policy. Returned goods will not be accepted without written permission from HDM. A \$50.00

handling fee or a 25% restocking charge (which ever is greater) will apply to this return goods policy. All adjustments on returns will be based upon cost at the time of purchase and goods must be in a saleable condition. All shipping costs, including duties, brokerage fees, drayage, etc., will be at purchaser's cost.

Stock Adjustments – Annual Returns

HDM will allow a one-time annual return of 5% of the prior year's purchase of product. All items returned must be shipped freight prepaid and items must appear on our latest price sheet. An off-setting order of double the dollar amount must accompany the return to waive the 25% restocking charge. A list of items to be returned must be submitted for approval before a Return Goods Authorization (RGA) will be issued. Returned goods must be in saleable condition to receive allowance.

All shipping costs, including duties, brokerage fees, drayage, etc., will be at purchaser's cost.

Warranty Policy

Accessories (Clamps, Elbows, etc.).....30 Days

Chrome Plated Parts.....180 Days

(Peeling, Rusting Roughness only)

Diesel Mufflers

Vertical Installations.....4 years or 500,000 miles

Horizontal Installations....3 years or 500,000 miles

Warranty Statement

Heavy Duty Manufacturing, Inc. warrants its products against failure due to defects in materials and workmanship for the period listed in the chart above for the particular part.

Heavy Duty Manufacturing's obligation under this warranty covers replacement of the failed part including transportation charges. This warranty does not cover failure due to misapplication, neglect, abuse, or improper installation. In no event shall **Heavy Duty Manufacturing, Inc.**, be liable for any consequential or incidental damages, including but not limited to loss of profit or revenues, loss of use of the exhaust product or any associated equipment, loss of capital, cost of substitute products, downtime costs, or claims of purchaser's customers for such damages regardless of whether such damages arises out of breach of contract, warranty, or tort (including negligence).

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GENERAL INFORMATION SECTION

HEAVY DUTY

MANUFACTURING, INC.

We have been in the aftermarket truck exhaust business for over 45 years and take pride in supplying a quality product to the marketplace. Our success through the years can be attributed to giving our customers dependable service, excellent coverage, and quality products at a competitive price.

HOW TO USE THIS CATALOG

Part Numbering System

Example:

3-500-36CP

3	500 = 5"	36 = 36"	FINISH
First number donates a certain type of part	Middle numbers indicate the diameter of the part	Numbers on the end tell the length of the part	Letters on the end indicate the type of finish None = Carbon Steel A = Aluminized CP = Chrome Plated SS = Stainless Steel

Muffler Information

Mufflers are categorized by style and listed in order by inlet size.

Muffler charts show inlet and outlet size, body diameter, body and overall length.

Muffler cross reference list follows the muffler parts.

Warranty Length

Accessories (*Clamps, Elbows, etc.*)

30 Days

Chrome Plated Parts

180 Days (*Peeling, Rusting, Roughness*)

Diesel Muffler – Horizontal Installation

3 years or 500,000 miles

Diesel Muffler – Vertical Installation

4 years or 500,000 miles

Warranty Statement

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In no event shall Heavy Duty Manufacturing, Inc. be liable for any consequential or incidental damages, including but not limited to loss of profit or revenues, loss of exhaust product or any associated equipment, loss of capital, cost of substitute products, downtime costs, or claims of purchaser's customers for such damages regardless of whether such damages arises out of breach of contract, warranty, or tort (*including negligence*).

Heavy Duty Manufacturing, Inc.

1605 Indian Brook Way • Suite 500 • Norcross, Georgia 30093

Phone: 800-241-0551 • Fax: 770-806-8801

MANUFACTURING CAPABILITIES

Heavy Duty Manufacturing, Inc. can bend from 2" OD to 5" OD tubing. The materials we work with include;

1. Mild Steel
2. Aluminized Steel
3. Stainless Steel

BENDING:

Heavy Duty Manufacturing, Inc. has five mandrel benders and various tooling. The tube bending chart capabilities chart lists the various sizes of material that we work with as well as the radii available on each size.

CUTTING:

Heavy Duty Manufacturing, Inc. uses Marvel band saws to perform a variety of cutting and trimming operations.

END FINISHING:

Heavy Duty Manufacturing, Inc. offers a wide range of end finishing operations. These include beading, flaring, reducing, expanding, drilling, flattening, notching and sizing.

METAL FINISHING:

Various finishes can be supplied at your request.

HEAVY DUTY MANUFACTURING, INC. TUBE BENDING CAPABILITIES

TUBE SIZE (OD)	CENTER LINE RADIUS
2.0"	2.0" - 4.0"
2.25"	2.25" - 3.0"
2.5"	2.50" - 3.0" - 5.0"
2.75"	2.75" - 4.0" - 5.0"
3.0"	3.0" - 4.0" - 6.0"
3.5"	4.0" - 6.0"
4.0"	4.0" - 5.0" - 6.0" - 8.0"
5.0"	6.0" - 8.0"
6.0"	6.0", 8.0" - 10"

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TRUCK CLASSIFICATION GUIDE

(based on Gross Vehicle Weight of Truck - GVW)

CATEGORY	GVW CLASS	GROSS VEHICLE WEIGHT RANGE
LIGHT	1	Up to 6,000 lbs. GVW
LIGHT	2	6,001 - 10,000 lbs. GVW
MEDIUM	3	10,001 - 14,000 lbs. GVW
MEDIUM	4	14,001 - 16,000 lbs. GVW
MEDIUM	5	16,001 - 19,500 lbs. GVW
MEDIUM	6	19,501 - 26,000 lbs. GVW
HEAVY	7	26,001 - 33,000 lbs. GVW
HEAVY	8	33,001 lbs. and Greater GVW

ENGINE SIZE CONVERSION CHART

CID	CC	LITER	CID	CC	LITER	CID	CC	LITER	CID	CC	LITER
61	1000	1.0	212	3475	3.5	350	5736	5.7	552	9047	9.0
92	1500	1.5	225	3688	3.7	351	5753	5.8	555	9096	9.1
98	1606	1.6	229	3753	3.8	359	5884	5.9	568	9310	9.3
105	1721	1.7	231	3786	3.8	360	5900	5.9	611	10014	10.0
112	1836	1.8	232	3802	3.8	368	6032	6.0	636	10424	10.4
121	1983	2.0	238	3901	3.9	378	6195	6.2	638	10457	10.5
122	2000	2.0	250	4097	4.1	379	6212	6.2	672	11014	11.0
134	2196	2.2	252	4310	4.1	400	6556	6.6	673	11030	11.0
135	2213	2.2	255	4179	4.2	403	6605	6.6	707	11588	11.6
140	2295	2.3	258	4229	4.2	420	6884	6.9	736	12036	12.0
151	2475	2.5	260	4261	4.3	425	6966	7.0	743	12178	12.2
156	2557	2.6	265	4343	4.3	426	6982	7.0	852	13964	13.9
159	2606	2.6	267	4376	4.4	454	7447	7.4	855	14013	14.0
170	2786	2.8	292	4786	4.8	460	7539	7.5	864	14161	14.2
171	2803	2.8	300	4917	4.9	466	7638	7.6	866	14194	14.2
173	2835	2.8	301	4933	4.9	475	7785	7.8	893	14636	14.6
181	2967	3.0	302	4949	5.0	495	8113	8.1	903	14800	14.8
196	3212	3.2	304	4983	5.0	500	8195	8.2	927	15193	15.2
200	3278	3.3	305	4999	5.0	504	8261	8.3	1099	18013	18.0
			307	5032	5.0	525	8605	8.6	1151	18848	18.8
			318	5212	5.2	551	9031	9.0			

**FOR ENGINES NOT LISTED ABOVE,
USE THE FOLLOWING CONVERSION TABLE**

TO CONVERT	INTO	MULTIPLY BY:
CID	CC	16.39
CID	LITER	0.01639
CC	CID	0.06101
LITER	CID	61.01

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INCHES TO METRIC CONVERSION CHART

INCHES	METRIC	INCHES	METRIC	INCHES	METRIC	INCHES	METRIC
0.125	3.18	25.0	635.00	57.0	1447.80	89.0	2260.60
0.250	6.35	26.0	660.40	58.0	1473.20	90.0	2286.00
0.375	9.53	27.0	685.80	59.0	1498.60	91.0	2311.40
0.500	12.70	28.0	711.20	60.0	1524.00	92.0	2336.80
0.675	15.88	29.0	736.60	61.0	1542.40	93.0	2362.20
0.750	19.05	30.0	762.00	62.0	1574.80	94.0	2387.60
0.875	22.23	31.0	787.40	63.0	1600.20	95.0	2413.00
		32.0	812.80	64.0	1625.60	96.0	2438.40
1.0	25.40	33.0	838.20	65.0	1651.00	97.0	2463.80
2.0	50.80	34.0	863.60	66.0	1676.40	98.0	2489.20
3.0	76.20	35.0	889.00	67.0	1701.80	99.0	2514.60
4.0	101.60	36.0	914.40	68.0	1727.20	100.0	2540.00
5.0	127.00	37.0	939.80	69.0	1752.60	101.0	2565.40
6.0	152.40	38.0	965.20	70.0	1778.00	102.0	2590.80
7.0	177.80	39.0	990.60	71.0	1803.40	103.0	2616.20
8.0	203.20	40.0	1016.00	72.0	1828.80	104.0	2641.60
9.0	228.60	41.0	1041.40	73.0	1854.20	105.0	2667.00
10.0	254.00	42.0	1066.80	74.0	1879.60	106.0	2692.40
11.0	279.40	43.0	1092.20	75.0	1905.00	107.0	2717.80
12.0	304.80	44.0	1117.60	76.0	1930.40	108.0	2743.20
13.0	330.20	45.0	1143.00	77.0	1955.80	109.0	2768.60
14.0	355.60	46.0	1168.40	78.0	1981.20	110.0	2794.00
15.0	381.00	47.0	1193.80	79.0	2006.60	111.0	2819.40
16.0	406.40	48.0	1219.20	80.0	2032.00	112.0	2844.80
17.0	431.80	49.0	1244.60	81.0	2057.40	113.0	2870.20
18.0	457.20	50.0	1270.00	82.0	2082.80	114.0	2895.60
19.0	482.60	51.0	1295.40	83.0	2108.20	115.0	2921.00
20.0	508.00	52.0	1320.80	84.0	2133.60	116.0	2946.40
21.0	533.40	53.0	1346.20	85.0	2159.00	117.0	2971.80
22.0	558.80	54.0	1371.60	86.0	2184.40	118.0	2997.20
23.0	584.20	55.0	1397.00	87.0	2209.80	119.0	3022.60
24.0	609.60	56.0	1422.40	88.0	2235.20	120.0	3048.00

EXHAUST PRODUCT MATERIALS

There are a number of materials used in heavy duty exhaust applications. Some of the materials are appropriate for heavy duty applications. Other choices are not durable at the temperatures generated by gas and diesel engines and should be avoided if acceptable service life is desired. Material selected must not only survive high temperatures, but also serve vibration, corrosive exhaust gasses, and external corroding agents such as salt and water.

The materials generally considered for exhaust parts are as follows;

- Low Carbon Cold Rolled Steel (CRS)
- Aluminized Steel
- 300 Series Stainless Steel
- 400 Series Stainless Steel
- Galvanized Steel

COLD ROLLED STEEL (CRS) This material is extremely susceptible to corrosion. These parts are only used when the lowest possible cost is desired. It is rare to find mufflers made out of (CRS), but there are stacks offered in some markets in (CRS). Clamps are another product commonly produced out of (CRS). Clamps are not exposed to the corrosive acids found in exhaust gasses but the high temperatures cause clamps to degrade rapidly in appearance and function. (CRS) clamps can be very difficult to remove after a short time in the field.

ALUMINIZED STEEL is the preferred material for most heavy duty applications. Aluminized steel is a low carbon steel with a thin layer of aluminum alloyed to the surface. The aluminum provides galvanic protection for the base material. Aluminized Steel parts have an ultimate service temperature of 1250° F with a continuous duty temperature of 1100° F. This material has excellent corrosion resistance to acidic diesel exhaust gasses. Aluminized Steel parts provide excellent field life at a reasonable cost.

300 SERIES STAINLESS STEELS are also applied in exhaust systems. The most common material is Type 304. This material has excellent corrosion resistance and very good high temperature strength and is used in some mufflers applications where very high stresses occur. It is

also used as a premium material for gas applications. The most prevalent use of this material in diesel heavy duty applications is for flex pipe. Flex pipe produced from light gauge 304 Stainless Steel is an excellent choice considering all the factors of cost, durability, and service life. In general field service life with stainless steel flex pipe is very good if the flex tubing is installed properly.

400 SERIES STAINLESS STEEL are used for extended service life in diesel applications, and often in gas applications due to their higher operating temperatures. This material family provides slightly better strength at exhaust system temperatures than aluminized steel.

The most common 409 Stainless Steel is stronger than aluminized but has cosmetic problems at exhaust system temperature. At first exposure to high temperature it discolors, and over time it develops a nondestructive coating of surface rust. After an extended time in the field a 409 product generally will display external discoloration and look worse than a similar aluminized part. Parts made with type 409 generally require some type of paint or other coating to slightly delay the onset of external discoloration, and the parts will hold a magnet due to higher iron content.

GALVANIZED STEEL parts are sometimes used in the exhaust market. This material has an upper temperature limit of approximately 600° F. At temperatures greater than 600° F the material rapidly corrodes with a resulting degradation in appearance and probable failure. Galvanized Steel is often used in flex pipe as a low cost replacement part. The initial low cost is offset by the limited field life of the product.

CHROME PLATED COLD ROLLED STEEL (CSR) parts are often found on exhaust systems. This material is a reasonable choice when a bright mirror finish is desired. Corrosion from the inside of the product can still occur. Chrome parts are very challenging to produce. It is important to produce the parts with a high level of quality because surface irregularities (and field damage to the surface) will lead to external rust.

EXHAUST TERMS AND DEFINITIONS

ATTENUATION

In an exhaust system, attenuation refers to the reduction in sound level measured between an engine without a muffler and the same engine with a muffler. This sound level is typically measured in a decibel scale (dBAs).

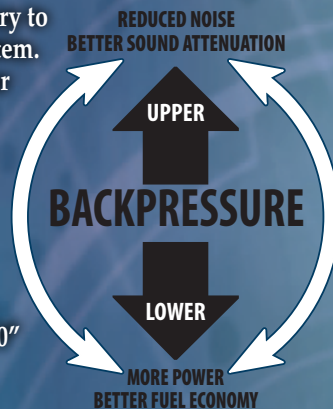
See chart below for examples:

Familiar Sounds on the dBA Noise Scale

dBA	EXAMPLES	dBA	EXAMPLES
0	Healthy Hearing Threshold	110	Rock Band · Jackhammer
10	Pin Dropping	115	Emergency Vehicle Siren
20	Rustling Leaves	120	Thunder · Oxygen Torch
30	Whisper	125	Balloon Popping
40	Babbling Brook · Computer	130	Stadium Crowd Noise
50	Light Traffic · Refrigerator	135	Air Raid Siren
60	Conversational Speech	140	Jet Engine At Takeoff
70	Shower · Dishwasher	145	Firecracker
75	Vacuum Cleaner	150	Fighter Jet Launch
80	Garbage Disposal	155	Cap Gun
85	Diesel Truck · Snow Blower	160	Shotgun
90	Lawn Mower · Arc Welder	165	357 Magnum Revolver
95	Subway Car · Belt Sander	170	Safety Airbag
100	Motorcycle · Handheld Drill	175	Howitzer Cannon
105	Sporting Event · Table Saw	180	Rocket Launch

BACKPRESSURE

Backpressure is the force necessary to flow exhaust gas through the system. Backpressure reduces horsepower and fuel economy – for turbocharged diesel engines – about 0.5% decrease in horsepower and fuel economy per inch Hg backpressure. Typically measured in inches of mercury (Hg) or inches of water H₂O) – 1.0" HG – 13.6" H₂O.



CFM

Cubic feet per minute of airflow

dBA

The sound level measured in decibels using a sound level meter weighted for the "A" scale frequency response. It has over 82% correlation with loudness as determined by the typical human ear (dB without the "A" scales weighting overall has only 70% correlation to loudness).

DECIBEL (dB)

A unit used to express the relative difference in acoustic power. Whenever dB is used a reference level is implied. The reference value of 0.0002 dynes/cm² = 0dB.

DOC MUFFLER

Diesel Oxidation Catalyst (DOC) Muffler. This muffler design contains a catalyst inside that reduces emissions while reducing exhaust noise. Also referred to as a catalytic converter muffler (CCM).

DPF MUFFLER

Diesel Particulate Filter (DPF) Muffler. This muffler design contains a particulate filter that requires Ultra Low Sulfur Diesel fuel. The filter eliminates a greater amount of particulate matter compared to a DOC Muffler, but has a higher activation temperature (260°C. Like a DOC it also reduced emissions while reducing exhaust noise.

DYNAMOMETER TEST

A test that allows an engine to be run to full horsepower and raised RPM while remaining stationary.

EXHAUST NOISE LEVEL

The sound level of the exhaust system, typically measured in dBA.

N/A

Naturally aspirated

RESONATOR

A device inserted in the exhaust system ahead of the muffler that provides additional exhaust noise silencing without adding significant backpressure.

SOUND LEVEL METER

A sound level measuring device that includes a microphone, an amplifier, an output meter and sound frequency networks for measuring sound levels in decibels.

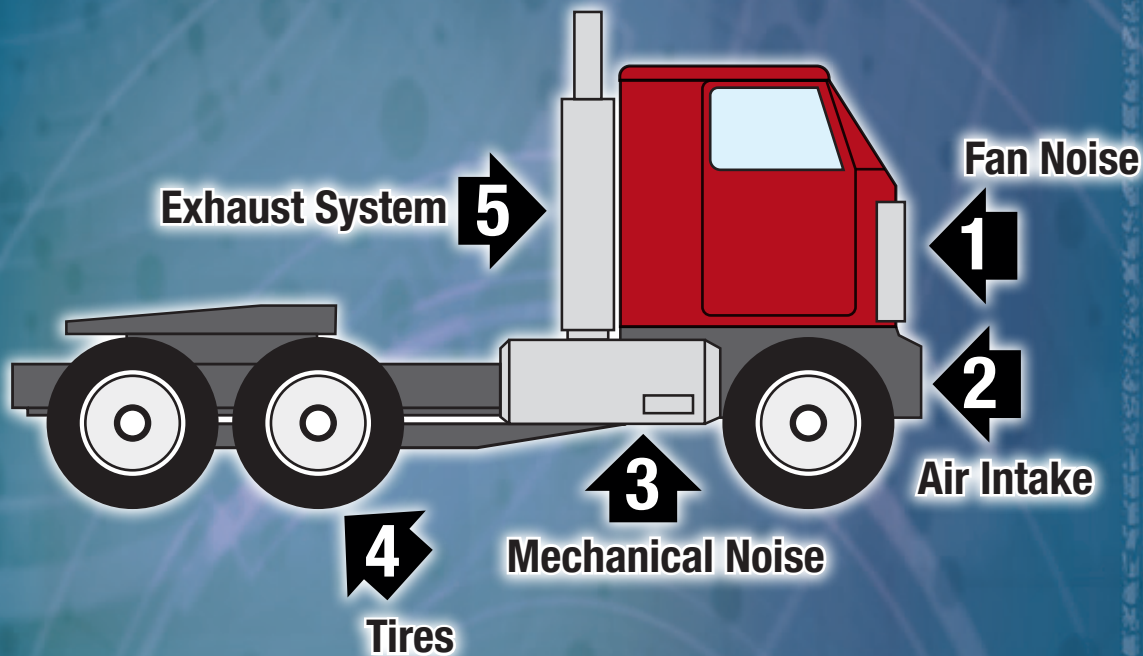
TOTAL VEHICLE NOISE

The sum of exhaust noise level measurement plus fan, intake, mechanical and tire noise. Noise levels add logarithmically (equal noise levels combined add 3 dB; example 75 dB + 75dB = 78 db).

FIVE MAJOR SOURCES OF NOISE IN TRUCKS

Note that all federal noise regulations remain in effect, are enforced by either EPA or a designated federal agency. These regulations cover standards for transportation equipment, motor carriers, low-noise-emission products, and construction equipment.

EPA does not have specific regulatory authority governing noise in local communities. You should consult with your local governmental (e.g., city and county) authorities to see if there are local or state laws that might apply to your situation. In addition, many states run noise pollution programs. To contact your state environmental agency for more information on their programs and regulations, see <http://www.epa.gov/epahome/state.htm>



EXHAUST PRODUCT MATERIALS

NOISE REDUCTION TIPS

1. Make sure your muffler is recommended by the muffler manufacturer for the particular engine in your vehicle. To meet the new noise laws, the "universal" must be replaced by a muffler designed specifically for the engine.
2. Tail pipes on horizontal exhaust systems should be tipped toward the center of the vehicle to avoid noise reflection off the road.
3. If you have curved stacks, replace them with straight stacks. Noise from a pipe outlet is directional and straight stacks will throw noise up, not to the side. Rain stacks and 45° cut stacks do not appreciably affect noise levels.
4. The length of stack installed on the muffler can be critical. If an irritating "rap" is heard at certain engine speeds, try stacks with different lengths.
5. In an exhaust system with piping exceeding 10 feet in length, the muffler is suggested to be installed where the exhaust pipe to the muffler is either one-half or four times the length of the tail pipe.
6. A resonator can be used in-line with the recommended muffler for additional noise reduction.
7. If you have increased the size of the exhaust piping or made a dual out of a single system, check recommendations for piping size. Over-sized systems are exceedingly noisy!
8. The vehicle operator, to a certain extent can control his vehicle noise. The greater the engines load the louder the noise. Certain engine speeds may be noisier than others. High vehicle speed causes more tire noise. Operating an engine brake when it's not needed may cause extra noise.
9. If the above mentioned techniques do not solve your problem, contract Heavy Duty Manufacturing, Inc. technical support for recommendations.

MAINTENANCE TIPS

1. Check flex tube regularly. Repair worn or leaking tubing.
2. Make sure the exhaust system is properly supported with required brackets, clamps and braces.
3. Check strap seal band clamps to ensure properly tightened to avoid leaks.
4. Consider acoustic compound when repairing OD-ID connections.

AFTERMARKET REGULATIONS FOR TOTAL TRUCK CARE

US EPA regulations stipulate maximum noise levels for both new (first-fit) and in-use trucks. Vehicle manufacturers are responsible for compliance of new trucks, and owners are responsible for in-use trucks. New trucks must be no louder than 80dB at 50 feet. In-use trucks if manufactured 1986 or later, must be less than 83dB. If they were manufactured before 1986, they must be no louder than 86dB. EPA regulations also stipulate that a replacement muffler be no louder than the original equipment (first-fit) muffler.

31000 SERIES HEAVY DUTY MUFFLERS

Heavy Duty Manufacturing, Inc. provides a select line of mufflers that cover all of the major truck engines and exhaust configurations. These mufflers will enable most trucks to meet their model year vehicle noise level requirement or to lower exhaust noise to current standards.

All of noise level and backpressure information is compiled in the muffler sections of this catalog.

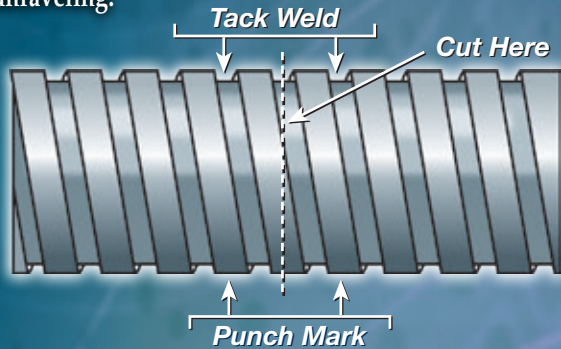
FLEX TUBING: CUTTING AND INSTALLATION

Flexible tubing can twist or unravel when cut, causing its diameter to change and make installation difficult. This occurs because flexible tubing must maintain flexibility in order to function properly, and therefore, cannot be tightly wound in the manufacturing process. However, flexible tubing can be managed for trouble-free installation by following these guidelines.

CUTTING

Step 1: Prepare

Place a tack weld between convolutions each side of on each side of the intended cut to keep ends from twisting or unraveling.



If a welder is not available, insert a mandrel or back-up pipe into the tubing and place a punch mark directly on convolutions on each side of the intended cut. Heavy-duty tape over a de-greased pair also works. Cut through tape and leave in place, clamp over tape.

Step 2: Cut

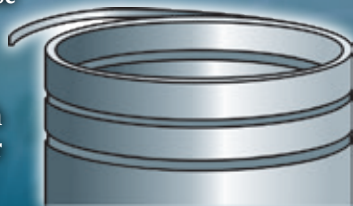
Place the tubing securely in a vice. Cut with a metal cutting band saw or a hacksaw with 32 teeth per inch.

Step 3 - Trim

Each side of the cut will now leave a spiral "tail" that must be removed to the point at which it is attached. Bend each tail until it breaks, or bend and use a cutting shear to remove.

Step 4 - Deburr

Deburr both cut surfaces with a hand-operated drum sander or file.



INSTALLATION

Flexible tubing's function is to prevent excessive stress on exhaust system components by absorbing vibration and thermal expansion that would otherwise cause system components to shake loose and break.

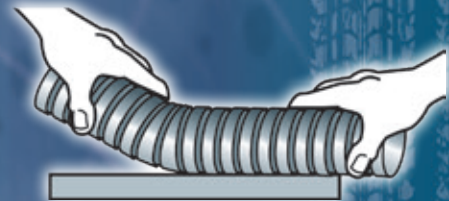
To provide adequate flexibility, flex tubing should be installed in a half extended state. To reach half extension, place the middle of the tubing over the edge of a work bench, push down on both halves and bend as much as possible.



Then place the entire piece of tubing on the work bench and push down until straightened. The tubing is now at half extension.

NOTE:

Do not use flexible tubing to form an exhaust pipe bend. Use elbows instead.



HEAVY DUTY

MANUFACTURING, INC.

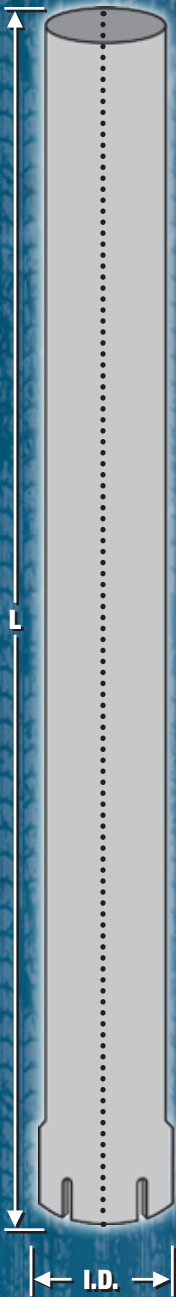
EXHAUST ACCESSORIES SECTION

HEAVY DUTY

MANUFACTURING, INC.

STACK PIPES • SQUARE CUT

CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIA.	LENGTH (INCHES)	CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER
(ID) END					(OD) END		
1-300-18	1-300-18A	1-300-18CP	3"	18"	2-300-18	2-300-18A	2-300-18CP
1-300-24	1-300-24A	1-300-24CP	3"	24"	2-300-24	2-300-24A	2-300-24CP
1-300-36	1-300-36A	1-300-36CP	3"	36"	2-300-36	2-300-36A	2-300-36CP
1-300-48	1-300-48A	1-300-48CP	3"	48"	2-300-48	2-300-48A	2-300-48CP
1-300-60	1-300-60A	1-300-60CP	3"	60"	2-300-60	2-300-60A	2-300-60CP
1-300-72	1-300-72A	1-300-72CP	3"	72"	2-300-72	2-300-72A	2-300-72CP
1-300-84	1-300-84A	1-300-84CP	3"	84"	2-300-84	2-300-84A	2-300-84CP
1-300-96	1-300-96A	1-300-96CP	3"	96"	2-300-96	2-300-96A	2-300-96CP
1-350-18	1-350-18A	1-350-18CP	3.5"	18"	2-350-18	2-350-18A	2-350-18CP
1-350-24	1-350-24A	1-350-24CP	3.5"	24"	2-350-24	2-350-24A	2-350-24CP
1-350-36	1-350-36A	1-350-36CP	3.5"	36"	2-350-36	2-350-36A	2-350-36CP
1-350-48	1-350-48A	1-350-48CP	3.5"	48"	2-350-48	2-350-48A	2-350-48CP
1-350-60	1-350-60A	1-350-60CP	3.5"	60"	2-350-60	2-350-60A	2-350-60CP
1-350-72	1-350-72A	1-350-72CP	3.5"	72"	2-350-72	2-350-72A	2-350-72CP
1-350-84	1-350-84A	1-350-84CP	3.5"	84"	2-350-84	2-350-84A	2-350-84CP
1-350-96	1-350-96A	1-350-96CP	3.5"	96"	2-350-96	2-350-96A	2-350-96CP
1-400-18	1-400-18A	1-400-18CP	4"	18"	2-400-18	2-400-18A	2-400-18CP
1-400-24	1-400-24A	1-400-24CP	4"	24"	2-400-24	2-400-24A	2-400-24CP
1-400-36	1-400-36A	1-400-36CP	4"	36"	2-400-36	2-400-36A	2-400-36CP
1-400-48	1-400-48A	1-400-48CP	4"	48"	2-400-48	2-400-48A	2-400-48CP
1-400-60	1-400-60A	1-400-60CP	4"	60"	2-400-60	2-400-60A	2-400-60CP
1-400-72	1-400-72A	1-400-72CP	4"	72"	2-400-72	2-400-72A	2-400-72CP
1-400-84	1-400-84A	1-400-84CP	4"	84"	2-400-84	2-400-84A	2-400-84CP
1-400-96	1-400-96A	1-400-96CP	4"	96"	2-400-96	2-400-96A	2-400-96CP
1-400-108	1-400-108A	1-400-108CP	4"	108"	2-400-108	2-400-108A	2-400-108CP
1-500-12	1-500-12A	1-500-12CP	5"	12"	--	--	--
1-500-18	1-500-18A	1-500-18CP	5"	18"	2-500-18	2-500-18A	2-500-18CP
1-500-24	1-500-24A	1-500-24CP	5"	24"	2-500-24	2-500-24A	2-500-24CP
1-500-36	1-500-36A	1-500-36CP	5"	36"	2-500-36	2-500-36A	2-500-36CP
1-500-48	1-500-48A	1-500-48CP	5"	48"	2-500-48	2-500-48A	2-500-48CP
1-500-60	1-500-60A	1-500-60CP	5"	60"	2-500-60	2-500-60A	2-500-60CP
1-500-72	1-500-72A	1-500-72CP	5"	72"	2-500-72	2-500-72A	2-500-72CP
1-500-84	1-500-84A	1-500-84CP	5"	84"	2-500-84	2-500-84A	2-500-84CP
1-500-96	1-500-96A	1-500-96CP	5"	96"	2-500-96	2-500-96A	2-500-96CP
1-500-108	1-500-108A	1-500-108CP	5"	108"	2-500-108	2-500-108A	2-500-108CP
--	--	--	6"	48"	2-600-48	2-600-48A	2-600-48CP
--	--	--	6"	60"	2-600-60	2-600-60A	2-600-60CP
--	--	--	6"	96"	2-600-96	2-600-96A	2-600-96CP
--	--	--	6"	108"	2-600-108	2-600-108A	2-600-108CP



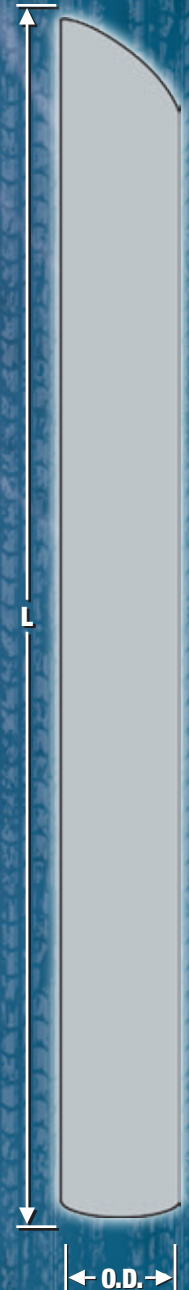
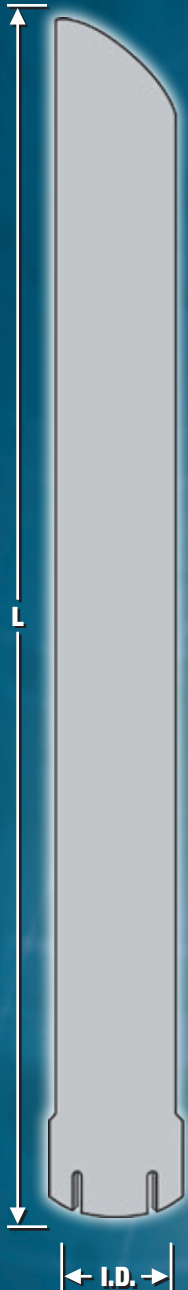
See Page 4 for Reduced 6" to 5" Stacks

HEAVY DUTY

MANUFACTURING, INC.

STACK PIPES • MITERED (ANGLE TOP)

CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIA.	LENGTH (INCHES)	CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER
(ID) END					(OD) END		
1-301-18	1-301-18A	1-301-18CP	3"	18"	2-301-18	2-301-18A	2-301-18CP
1-301-24	1-301-24A	1-301-24CP	3"	24"	2-301-24	2-301-24A	2-301-24CP
1-301-36	1-301-36A	1-301-36CP	3"	36"	2-301-36	2-301-36A	2-301-36CP
1-301-48	1-301-48A	1-301-48CP	3"	48"	2-301-48	2-301-48A	2-301-48CP
1-301-60	1-301-60A	1-301-60CP	3"	60"	2-301-60	2-301-60A	2-301-60CP
1-301-72	1-301-72A	1-301-72CP	3"	72"	2-301-72	2-301-72A	2-301-72CP
1-301-84	1-301-84A	1-301-84CP	3"	84"	2-301-84	2-301-84A	2-301-84CP
1-301-96	1-301-96A	1-301-96CP	3"	96"	2-301-96	2-301-96A	2-301-96CP
1-351-18	1-351-18A	1-351-18CP	3.5"	18"	2-351-18	2-351-18A	2-351-18CP
1-351-24	1-351-24A	1-351-24CP	3.5"	24"	2-351-24	2-351-24A	2-351-24CP
1-351-36	1-351-36A	1-351-36CP	3.5"	36"	2-351-36	2-351-36A	2-351-36CP
1-351-48	1-351-48A	1-351-48CP	3.5"	48"	2-351-48	2-351-48A	2-351-48CP
1-351-60	1-351-60A	1-351-60CP	3.5"	60"	2-351-60	2-351-60A	2-351-60CP
1-351-72	1-351-72A	1-351-72CP	3.5"	72"	2-351-72	2-351-72A	2-351-72CP
1-351-84	1-351-84A	1-351-84CP	3.5"	84"	2-351-84	2-351-84A	2-351-84CP
1-351-96	1-351-96A	1-351-96CP	3.5"	96"	2-351-96	2-351-96A	2-351-96CP
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1-401-36	1-401-36A	1-401-36CP	4"	36"	2-401-36	2-401-36A	2-401-36CP
1-401-48	1-401-48A	1-401-48CP	4"	48"	2-401-48	2-401-48A	2-401-48CP
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1-401-72	1-401-72A	1-401-72CP	4"	72"	2-401-72	2-401-72A	2-401-72CP
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1-501-24	1-501-24A	1-501-24CP	5"	24"	2-501-24	2-501-24A	2-501-24CP
1-501-36	1-501-36A	1-501-36CP	5"	36"	2-501-36	2-501-36A	2-501-36CP
1-501-48	1-501-48A	1-501-48CP	5"	48"	2-501-48	2-501-48A	2-501-48CP
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1-501-72	1-501-72A	1-501-72CP	5"	72"	2-501-72	2-501-72A	2-501-72CP
1-501-84	1-501-84A	1-501-84CP	5"	84"	2-501-84	2-501-84A	2-501-84CP
1-501-96	1-501-96A	1-501-96CP	5"	96"	2-501-96	2-501-96A	2-501-96CP
1-501-108	1-501-108A	1-501-108CP	5"	108"	2-501-108	2-501-108A	2-501-108CP
--	--	--	6"	48"	2-601-48	2-601-48A	2-601-48CP
--	--	--	6"	60"	2-601-60	2-601-60A	2-601-60CP
--	--	--	6"	96"	2-601-96	2-601-96A	2-601-96CP
--	--	--	6"	108"	2-601-108	2-601-108A	2-601-108CP



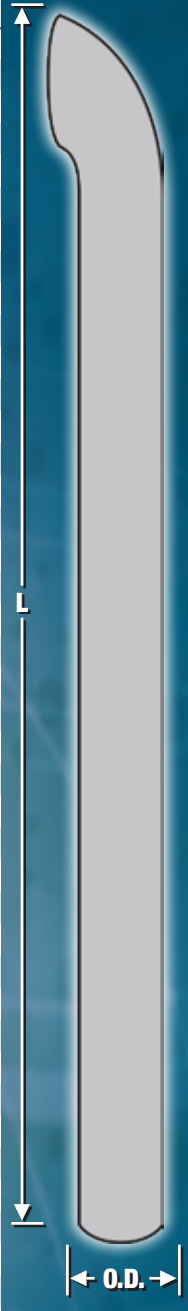
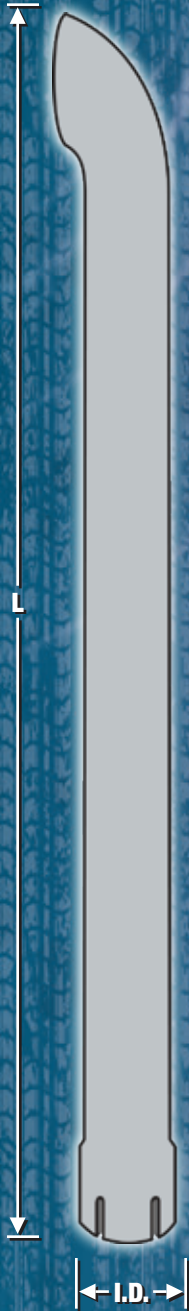
See Page 1.4 for Reduced 6" to 5" Stacks

HEAVY DUTY

MANUFACTURING, INC.

STACK PIPES • CURVED TOP

CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIA.	LENGTH (INCHES)	CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER
(ID) END			(OD) END				
3-300	3-300A	3-300CP	3"	16"	3-301	3-301A	3-301CP
3-300-12	3-300-12A	3-300-12CP	3"	12"	3-301-12	3-301-12A	3-301-12CP
3-300-18	3-300-18A	3-300-18CP	3"	18"	3-301-18	3-301-18A	3-301-18CP
3-300-24	3-300-24A	3-300-24CP	3"	24"	3-301-24	3-301-24A	3-301-24CP
3-300-36	3-300-36A	3-300-36CP	3"	36"	3-301-36	3-301-36A	3-301-36CP
3-300-48	3-300-48A	3-300-48CP	3"	48"	3-301-48	3-301-48A	3-301-48CP
3-300-60	3-300-60A	3-300-60CP	3"	60"	3-301-60	3-301-60A	3-301-60CP
3-300-72	3-300-72A	3-300-72CP	3"	72"	3-301-72	3-301-72A	3-301-72CP
3-300-84	3-300-84A	3-300-84CP	3"	84"	3-301-84	3-301-84A	3-301-84CP
3-300-96	3-300-96A	3-300-96CP	3"	96"	3-301-96	3-301-96A	3-301-96CP
3-350	3-350A	3-350CP	3"	16"	3-351	3-351A	3-351CP
3-350-12	3-350-12A	3-350-12CP	3.5"	12"	3-351-12	3-351-12A	3-351-12CP
3-350-18	3-350-18A	3-350-18CP	3.5"	18"	3-351-18	3-351-18A	3-351-18CP
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3-350-72	3-350-72A	3-350-72CP	3.5"	72"	3-351-72	3-351-72A	3-351-72CP
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3-350-96	3-350-96A	3-350-96CP	3.5"	96"	3-351-96	3-351-96A	3-351-96CP
3-400	3-400A	3-400CP	4"	16"	3-401	3-401A	3-401CP
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3-400-84	3-400-84A	3-400-84CP	4"	84"	3-401-84	3-401-84A	3-401-84CP
3-400-96	3-400-96A	3-400-96CP	4"	96"	3-401-96	3-401-96A	3-401-96CP
3-400-108	3-400-108A	3-400-108CP	4"	108"	3-401-108	3-401-108A	3-401-108CP
3-500	3-500A	3-500CP	5"	16"	3-501	3-501A	3-501CP
3-500-12	3-500-12A	3-500-12CP	5"	12"	3-501-12	3-501-12A	3-501-12CP
3-500-18	3-500-18A	3-500-18CP	5"	18"	3-501-18	3-501-18A	3-501-18CP
3-500-24	3-500-24A	3-500-24CP	5"	24"	3-501-24	3-501-24A	3-501-24CP
3-500-36	3-500-36A	3-500-36CP	5"	36"	3-501-36	3-501-36A	3-501-36CP
3-500-48	3-500-48A	3-500-48CP	5"	48"	3-501-48	3-501-48A	3-501-48CP
3-500-60	3-500-60A	3-500-60CP	5"	60"	3-501-60	3-501-60A	3-501-60CP
3-500-72	3-500-72A	3-500-72CP	5"	72"	3-501-72	3-501-72A	3-501-72CP
3-500-84	3-500-84A	3-500-84CP	5"	84"	3-501-84	3-501-84A	3-501-84CP
3-500-96	3-500-96A	3-500-96CP	5"	96"	3-501-96	3-501-96A	3-501-96CP
3-500-108	3-500-108A	3-500-108CP	5"	108"	3-501-108	3-501-108A	3-501-108CP

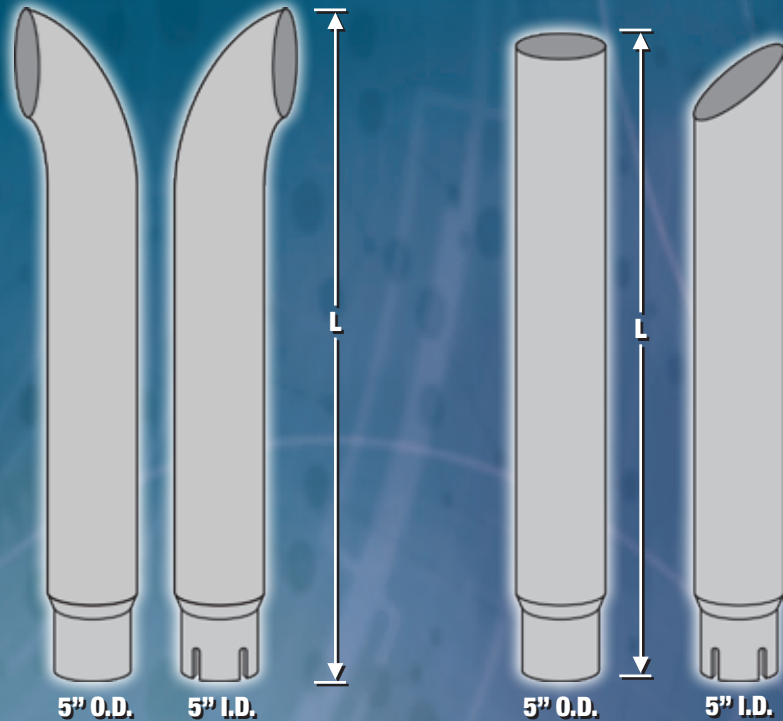


See Page 1.4 for Reduced 6" to 5" Stacks

HEAVY DUTY

MANUFACTURING, INC.

SPECIAL STACKS • 6" - 5" REDUCED



CHROME PART NUMBER	DIAMETER	STYLE	LENGTH (INCHES)
--------------------	----------	-------	-----------------

SQUARE CUT

1-605-84SQCP	6-5"	ID	84"
1-605-96SQCP	6-5"	ID	96"
1-605-108SQCP	6-5"	ID	108"

CURVED TOP

3-605-96CP	6-5"	ID	96"
3-605-108CP	6-5"	ID	108"
3-615-36CP	6-5"	OD	36"
3-615-48CP	6-5"	OD	48"
3-615-60CP	6-5"	OD	60"

MITERED TOP (45° ANGLE CUT)

1-605-84CP	6-5"	ID	84"
1-605-96CP	6-5"	ID	96"
1-605-108CP	6-5"	ID	108"

STACK PIPE · AUSSIE AND BULLHORN

AUSSIE STACKS



REDUCED
5" I.D.
BOTTOM

REDUCED
5" O.D.
BOTTOM

CHROME PART NUMBER	DIAMETER	STYLE	LENGTH (INCHES)
3-605-108ZCP	6-5"	ID	108"
3-401-24ZCP	4"	OD	24"
3-401-36ZCP	4"	OD	36"
3-401-48ZCP	4"	OD	48"
3-401-60ZCP	4"	OD	60"
3-501-24ZCP	5"	OD	24"
3-501-36ZCP	5"	OD	36"
3-501-48ZCP	5"	OD	48"
3-501-60ZCP	5"	OD	60"
3-501-72ZCP	5"	OD	72"
3-615-24ZCP	6-5"	OD	24"
3-615-36ZCP	6-5"	OD	36"
3-615-48ZCP	6-5"	OD	48"
3-615-60ZCP	6-5"	OD	60"

BULLHORN STACKS

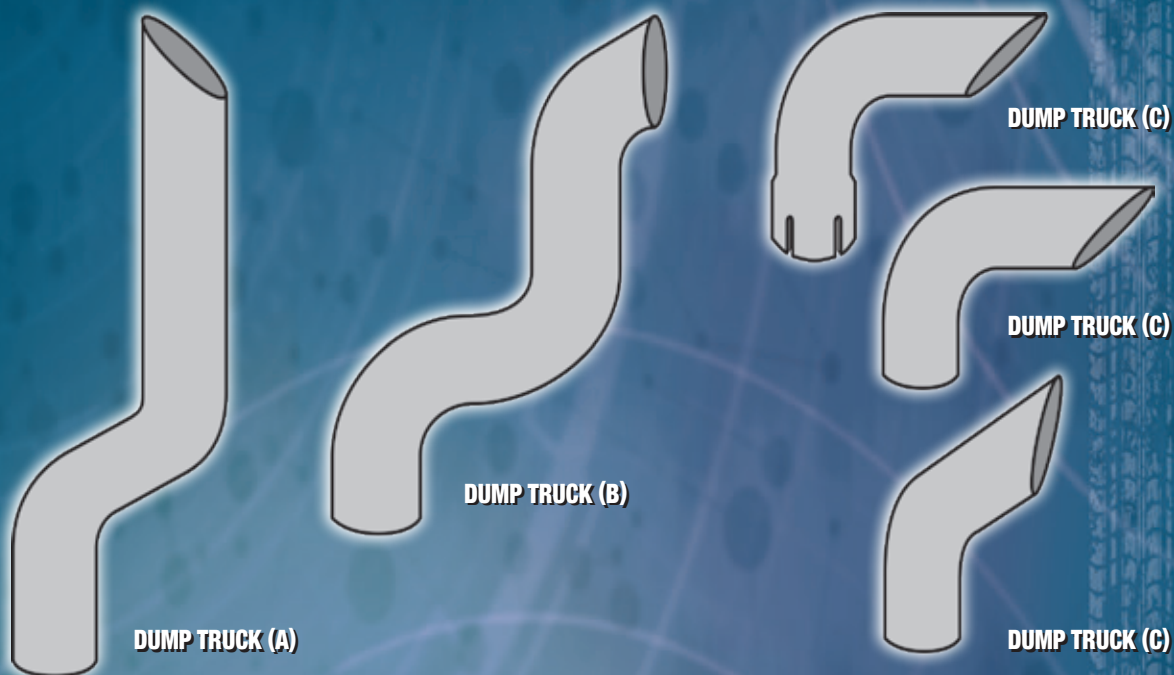


REDUCED
5" I.D.
BOTTOM

REDUCED
5" O.D.
BOTTOM

CHROME PART NUMBER	DIAMETER	STYLE	LENGTH (INCHES)
3-500-72BHCP	5"	ID	72"
3-500-84BHCP	5"	ID	84"
3-500-96BHCP	5"	ID	96"
3-500-108BHCP	5"	ID	108"
3-605-72BHCP	6-5"	ID	72"
3-605-84BHCP	6-5"	ID	84"
3-605-96BHCP	6-5"	ID	96"
3-605-108BHCP	6-5"	ID	108"
3-501-24BHCP	5"	OD	24"
3-501-36BHCP	5"	OD	36"
3-501-48BHCP	5"	OD	48"
3-501-60BHCP	5"	OD	60"
3-501-72BHCP	5"	OD	72"
3-601-36BHCP	6"	OD	36"
3-601-48BHCP	6"	OD	48"
3-601-60BHCP	6"	OD	60"
3-615-36BHCP	6-5"	OD	36"
3-615-48BHCP	6-5"	OD	48"
3-615-60BHCP	6-5"	OD	60"

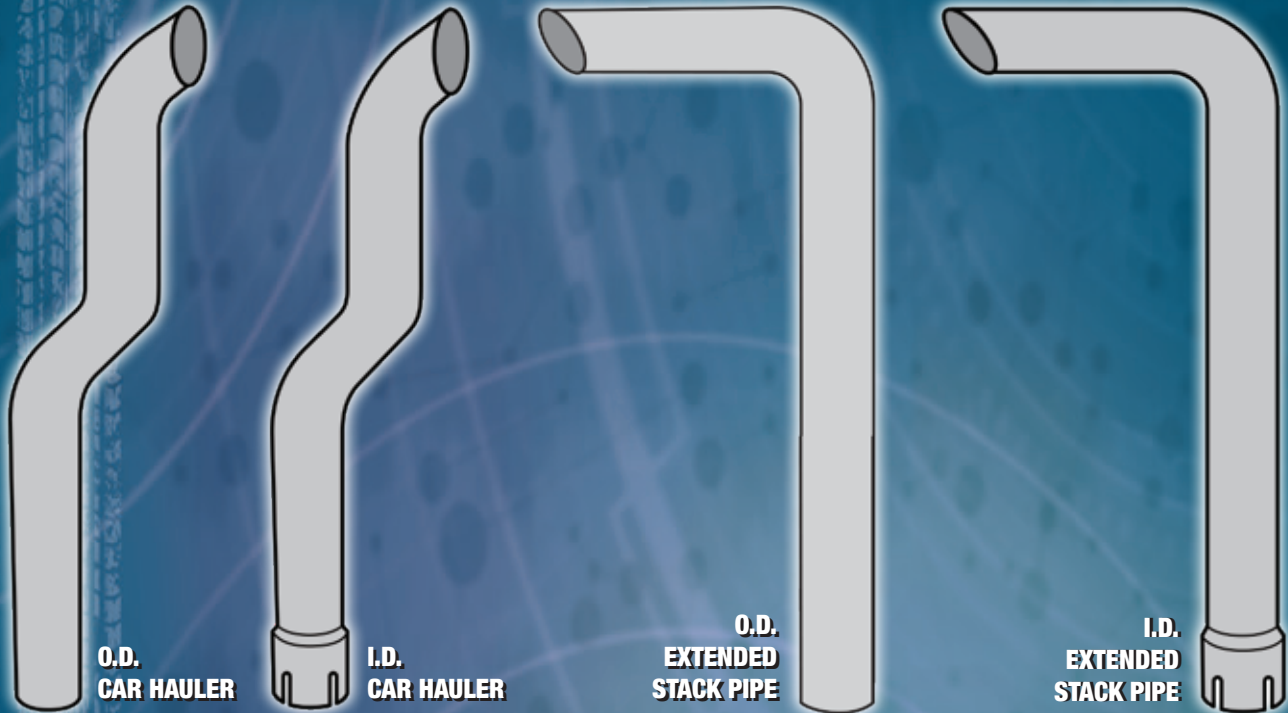
SPECIAL STACKS Dump Truck



CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	STYLE	LENGTH (INCHES)
DUMP TRUCK STACKS - (A)					
2-401-51D	2-401-51DA	2-401-51DCP	4.00	OD	51.00
2-501-60D	2-501-60DA	2-501-60DCP	5.00	OD	60.00
DUMP TRUCK STACKS - (B)					
3-401-295D	3-401-295DA	3-401-295DCP	4.00	OD	29.50
3-501-295D	3-501-295DA	3-501-295DCP	5.00	OD	29.50
DUMP TRUCK STACKS - (C)					
3-400-10D	3-400-10DA	3-400-10DCP	4.00	ID	10.00
3-500-10D	3-500-10DA	3-500-10DCP	5.00	ID	10.00
3-401-10D	3-401-10DA	3-401-10DCP	4.00	OD	10.00
3-501-10D	3-501-10DA	3-501-10DCP	5.00	OD	10.00
3-401-45D	3-401-45DA	3-401-45DCP	4.00	OD	16.50
3-501-45D	3-501-45DA	3-501-45DCP	5.00	OD	16.50

SPECIAL STACKS

Car Hauler and Extended with 24" Turnouts



CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	LENGTH (INCHES)	CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER
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CAR HAULER

(ID) END					(OD) END		
3-400-72C	3-400-72CA	3-400-72CCP	4"	72"	3-401-72C	3-401-72CA	3-401-72CCP
3-500-72C	3-500-72CA	3-500-72CCP	5"	72"	3-501-72C	3-501-72CA	3-501-72CCP

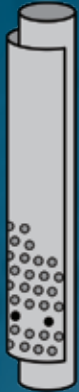
EXTENDED STACK PIPES with 24" TURNOUT

(ID) END					(OD) END		
3-400-36L	3-400-36LA	3-400-36LCP	4"	36"	3-401-36L	3-401-36LA	3-401-36LCP
3-500-48L	3-400-48LA	3-400-48LCP	4"	48"	3-401-48L	3-401-48LA	3-401-48LCP
3-500-60L	3-400-60LA	3-400-60LCP	4"	60"	3-401-60L	3-401-60LA	3-401-60LCP
3-500-36L	3-500-36LA	3-500-36LCP	5"	36"	3-501-36L	3-501-36LA	3-501-36LCP
3-500-48L	3-500-48LA	3-500-48LCP	5"	48"	3-501-48L	3-501-48LA	3-501-48LCP
3-500-60L	3-500-60LA	3-500-60LCP	5"	60"	3-501-60L	3-501-60LA	3-501-60LCP

HEAVY DUTY

MANUFACTURING, INC.

1/2 AND 3/4 STACK AND MUFFLER CAGES



1/2 WRAP
PIPE GUARD
(round hole)



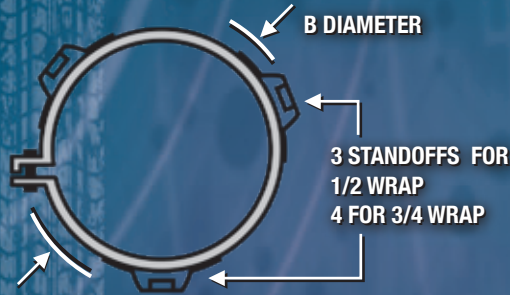
1/2 WRAP
MUFFLER GUARD



3/4 WRAP
MUFFLER GUARD

PAINTED PART NUMBER	STAINLESS PART NUMBER	DESCRIPTION		WRAP	TYPE	PATTERN	NOTES
		DIAMETER	LENGTH				
4-36P	4-36SS	--	36"	180°	STACK CAGE	0.75 DIA HOLES	CAGE ONLY
4-36-4P	4-36-4SS	4"	36"	180°	STACK CAGE	0.75 DIA HOLES	4" MTG. RINGS INCLUDED
4-36-5P	4-36-5SS	5"	36"	180°	STACK CAGE	0.75 DIA HOLES	5" MTG. RINGS INCLUDED
4-42P	--	--	42"	180°	MUFFLER CAGE	0.75 DIA HOLES	CAGE ONLY
4-42-85P	--	8.5"	42"	180°	MUFFLER CAGE	0.75 DIA HOLES	8.5" MTG. RINGS INCLUDED
4-42-90P	--	9"	42"	180°	MUFFLER CAGE	0.75 DIA HOLES	9" MTG. RINGS INCLUDED
4-48P	4-48SS	--	48"	180°	STACK CAGE	0.75 DIA HOLES	CAGE ONLY
4-48-4P	4-48-4SS	4"	48"	180°	STACK CAGE	0.75 DIA HOLES	4" MTG. RINGS INCLUDED
4-48-5P	4-48-5SS	5"	48"	180°	STACK CAGE	0.75 DIA HOLES	5" MTG. RINGS INCLUDED
--	4-48-270SS	5"	48"	270°	STACK CAGE	0.75 DIA HOLES	CAGE ONLY
4-51P	4-51SS	--	51"	180°	MUFFLER CAGE	0.75 DIA HOLES	CAGE ONLY
4-51-85P	4-51-85SS	8.5"	51"	180°	MUFFLER CAGE	0.75 DIA HOLES	8.5" MTG. RINGS INCLUDED
4-51-90P	4-51-90SS	9"	51"	180°	MUFFLER CAGE	0.75 DIA HOLES	9" MTG. RINGS INCLUDED
4-51-10P	4-51-10SS	10"	51"	180°	MUFFLER CAGE	0.75 DIA HOLES	10" MTG. RINGS INCLUDED
--	4-51-6SCSS	6"	51"	180°	STACK CAGE	0.75 DIA HOLES	6" MTG. RINGS INCLUDED
--	4-51-75SS	--	51"	270°	MUFFLER CAGE	0.75 DIA HOLES	CAGE ONLY
--	4-51-9075SS	9"	51"	270°	MUFFLER CAGE	0.75 DIA HOLES	9" MTG. RINGS INCLUDED
--	4-51-1075SS	10"	51"	270°	MUFFLER CAGE	0.75 DIA HOLES	10" MTG. RINGS INCLUDED

MUFFLER AND STACK MOUNTING BRACKETS FOR STACK AND MUFFLER CAGES



- 2 Clamps per Kit
- Stainless Mounting Hardware Supplied with Each Kit

CHROME PART NUMBER	SIZE	WRAP	TYPE
5-4CP	4" DIA. RING	180°	STACK CAGE
5-5CP	5" DIA. RING	180°	STACK CAGE
5-6CP	6" DIA. RING	180°	STACK CAGE
5-85CP	8.5" DIA. RING	180°	MUFFLER CAGE
5-90CP	9" DIA. RING	180°	MUFFLER CAGE
5-10CP	10" DIA. RING	180°	MUFFLER CAGE
5-9075CP	9" DIA. RING	270°	STAINLESS CAGE
5-1075CP	10" DIA. RING	270°	STAINLESS CAGE

STACK MOUNTING BRACKETS

KENWORTH

CHROME PART NUMBER	DIAMETER
13K-500CP	5"
13K-600CP	6"



PETERBILT

CHROME PART NUMBER	DIAMETER
13P-500CP	5"
13P-600CP	6"



RAIN CAPS

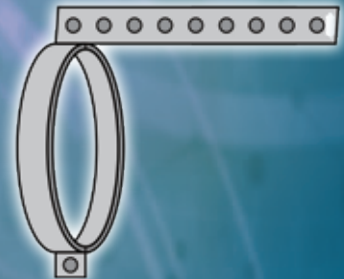
DIAMETER	ZINC PART NUMBER	CHROME PART NUMBER
2"	9-200	--
2.25"	9-225	--
2.5"	9-250	--
2.75"	9-275	--
3"	9-300	--
3.5"	9-350	--
4"	9-400	--
5"	9-500	9-500CP
6"	9-600	--



MUFFLER HANGER

BOLT INCLUDED FOR MUFFLER ASSEMBLY

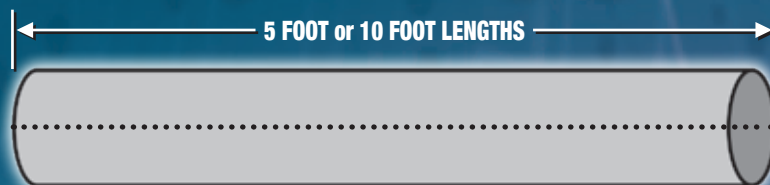
PLAIN PART NUMBER	DIAMETER
15-600	6"
15-700	7"
15-800	8"
15-850	8.5"
15-900	9"
15-1000	10"
15-1015	10" x 15"
15-1100	11"



HEAVY DUTY

MANUFACTURING, INC.

STRAIGHT TUBING (16 gauge - 0.65 wall)



5 FOOT LENGTHS

DIAMETER (O.D.)	CARBON PART NUMBER	ALUMINIZED PART NUMBER	(409) STAINLESS PART NUMBER
2"	--	10-200-5A	--
2.25"	--	10-225-5A	--
2.5"	--	10-250-5A	--
2.75"	--	10-275-5A	--
3"	10-300-5	10-300-5A	--
3.5"	10-350-5	10-350-5A	--
4"	10-400-5	10-400-5A	10-400-5SS
5"	10-500-5	10-500-5A	10-500-5SS
6"	10-600-5	10-600-5A	--

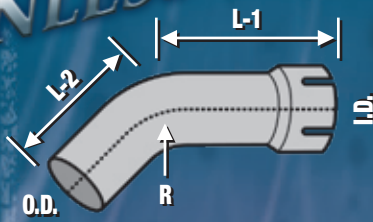
10 FOOT LENGTHS

DIAMETER (O.D.)	CARBON PART NUMBER	ALUMINIZED PART NUMBER	(409) STAINLESS PART NUMBER
2"	--	10-200A	--
2.25"	--	10-225A	--
2.5"	--	10-250A	--
2.75"	--	10-275A	--
3"	10-300	10-300A	--
3.5"	10-350	10-350A	--
4"	10-400	10-400A	10-400SS
5"	10-500	10-500A	10-500SS
6"	10-600	10-600A	--

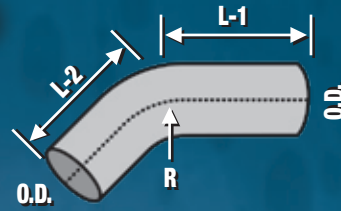
HEAVY DUTY

MANUFACTURING, INC.

STAINLESS



45° ELBOWS



STAINLESS PART NUMBER	STYLE
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45° ELBOWS - SHORT RADIUS (ID - OD)

11B-300-45SS	ID/OD
11B-350-45SS	ID/OD
11B-400-45SS	ID/OD
11B-500-45SS	ID/OD

DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
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LEG LENGTH IS MEASURED FROM CENTER LINE

3"	4"	4"	4"
3.5"	4.5"	4.5"	4"
4"	5"	5"	5"
5"	6"	6"	6"

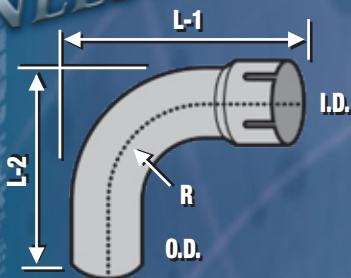
45° ELBOWS - SHORT RADIUS (OD - OD)

11C-300-45SS	OD/OD
11C-350-45SS	OD/OD
11C-400-45SS	OD/OD
11C-500-45SS	OD/OD

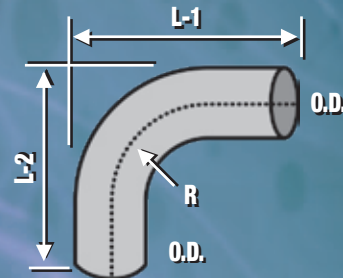
LEG LENGTH IS MEASURED FROM CENTER LINE

3"	4"	4"	4"
3.5"	4.5"	4.5"	4"
4"	5"	5"	5"
5"	6"	6"	5"

STAINLESS



90° ELBOWS



STAINLESS PART NUMBER	STYLE
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90° ELBOWS - SHORT RADIUS (ID - OD)

12-300SS	ID/OD
12-350SS	ID/OD
12-400SS	ID/OD
12L-400SS	ID/OD
12-500SS	ID/OD
12L-500SS	ID/OD

DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
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LEG LENGTH IS MEASURED FROM BACK ELBOW

3"	12"	12"	4"
3.5"	12"	12"	4"
4"	12"	12"	5"
4"	16"	16"	5"
5"	12"	12"	6"
5"	15.5"	15.5"	6"

90° ELBOWS - SHORT RADIUS (OD - OD)

12B-300SS	OD/OD
12B-350SS	OD/OD
12B-400SS	OD/OD
12BL-400SS	OD/OD
12B-500SS	OD/OD
12BL-500SS	OD/OD

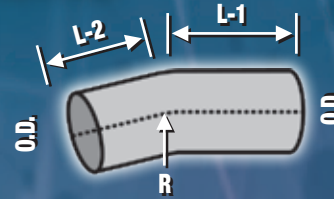
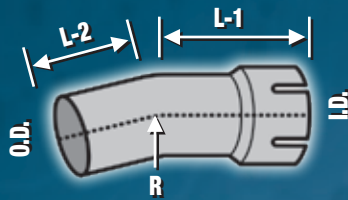
LEG LENGTH IS MEASURED FROM BACK ELBOW

3"	12"	12"	4"
3.5"	12"	12"	4"
4"	12"	12"	5"
4"	16"	16"	5"
5"	12"	12"	6"
5"	16"	16"	6"

HEAVY DUTY

MANUFACTURING, INC.

15° ELBOWS



CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
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15° ELBOWS - SHORT RADIUS (ID/OD)

11-300-15	11-300-15A	11-300-15CP	ID/OD
11-350-15	11-350-15A	11-350-15CP	ID/OD
11-400-15	11-400-15A	11-400-15CP	ID/OD
11-500-15	11-500-15A	11-500-15CP	ID/OD

LEG LENGTH IS MEASURED FROM CENTER LINE

3"	4"	4"	4"
3.5"	4"	4"	4"
4"	4"	4"	5"
5"	4"	4"	6"

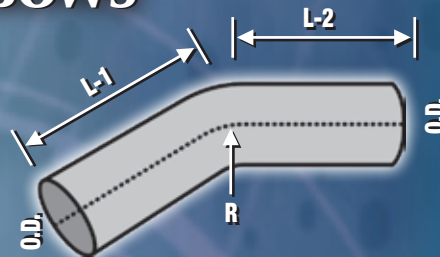
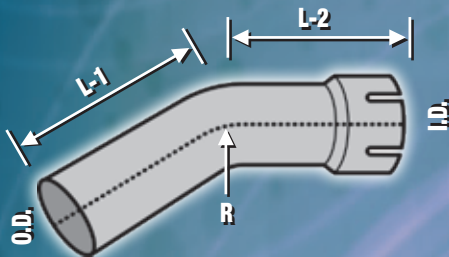
15° ELBOWS - SHORT RADIUS (OD/OD)

11A-300-15	11A-300-15A	11A-300-15CP	OD/OD
11A-350-15	11A-350-15A	11A-350-15CP	OD/OD
11A-400-15	11A-400-15A	11A-400-15CP	OD/OD
11A-500-15	11A-500-15A	11A-500-15CP	OD/OD

LEG LENGTH IS MEASURED FROM CENTER LINE

3"	4"	4"	4"
3.5"	4"	4"	4"
4"	4"	4"	5"
5"	4"	4"	6"

30° ELBOWS



CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
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30° ELBOWS - SHORT RADIUS (ID/OD)

11-300-30	11-300-30A	11-300-30CP	ID/OD
11-350-30	11-350-30A	11-350-30CP	ID/OD
11-400-30	11-400-30A	11-400-30CP	ID/OD
11-500-30	11-500-30A	11-500-30CP	ID/OD

LEG LENGTH IS MEASURED FROM CENTER LINE

3"	4"	4"	4"
3.5"	4"	4"	4"
4"	4"	4"	5"
5"	4"	4"	6"

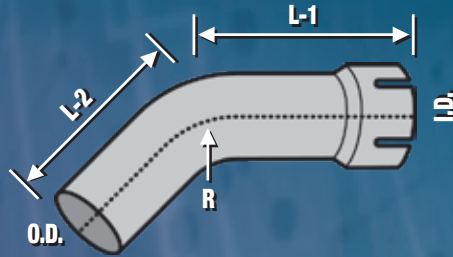
30° ELBOWS - SHORT RADIUS (OD/OD)

11A-300-30	11A-300-30A	11A-300-30CP	OD/OD
11A-350-30	11A-350-30A	11A-350-30CP	OD/OD
11A-400-30	11A-400-30A	11A-400-30CP	OD/OD
11A-500-30	11A-500-30A	11A-500-30CP	OD/OD

LEG LENGTH IS MEASURED FROM CENTER LINE

3"	4"	4"	4"
3.5"	4"	4"	4"
4"	4"	4"	5"
5"	4"	4"	6"

45° ELBOWS - ID/OD



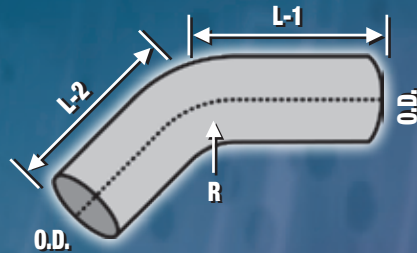
CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
45° ELBOWS - (ID/OD)							
LEG LENGTH IS MEASURED FROM CENTER LINE							
--	11-200-45A	--	ID/OD	2"	8"	8"	4"
--	11-250-45A	--	ID/OD	2.5"	9"	9"	5"
--	11-275-45A	--	ID/OD	2.75"	9"	9"	5"
11S-350-45	11S-350-45A	11S-350-45CP	ID/OD	3.5"	5.75"	5.75"	6"
11-350-45	11-350-45A	11-350-45CP	ID/OD	3.5"	9.25"	9.25"	6"
11-400-666	11-400-666A	11-400-666CP	ID/OD	4"	6"	6"	6"
11-400-998	11-400-998A	11-400-998CP	ID/OD	4"	9.4"	9.4"	8"
11S-500-45	11S-500-45A	11S-500-45CP	ID/OD	5"	7"	7"	8"
11-500-45	11-500-45A	11-500-45CP	ID/OD	5"	12"	12"	8"
11-500-888	11-500-888A	11-500-888CP	ID/OD	5"	8"	8"	8"
11-500-15158	11-500-15158A	11-500-15158CP	ID/OD	5"	15"	15"	8"
11-600-45	11-600-45A	11-600-45CP	ID/OD	6"	15.5"	15.5"	10"

CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
45° ELBOWS - SHORT RADIUS (ID/OD)							
LEG LENGTH IS MEASURED FROM CENTER LINE							
--	11-225-45A	--	ID/OD	2.25"	9"	9"	3"
11B-300-45	11B-300-45A	11B-300-45CP	ID/OD	3"	4"	4"	4"
11S-300-45	11S-300-45A	11S-300-45CP	ID/OD	3"	5.5"	5.5"	4"
11-300-45	11-300-45A	11-300-45CP	ID/OD	3"	9"	9"	4"
11B-350-45	11B-350-45A	11B-350-45CP	ID/OD	3.5"	4.5"	4.5"	4"
11B-400-45	11B-400-45A	11B-400-45CP	ID/OD	4"	5"	5"	5"
11S-400-45	11S-400-45A	11S-400-45CP	ID/OD	4"	5.25"	5.25"	5"
11-400-45	11-400-45A	11-400-45CP	ID/OD	4"	9.25"	9.25"	5"
11-400-45L	11-400-45LA	11-400-45LCP	ID/OD	4"	12"	12"	5"
11B-500-45	11B-500-45A	11B-500-45CP	ID/OD	5"	6"	6"	6"

HEAVY DUTY

MANUFACTURING, INC.

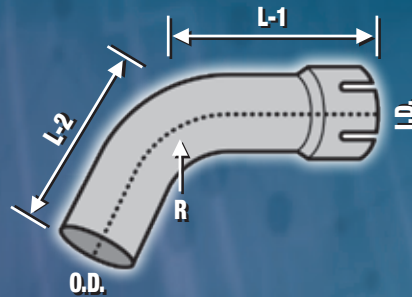
45° ELBOWS - OD/OD



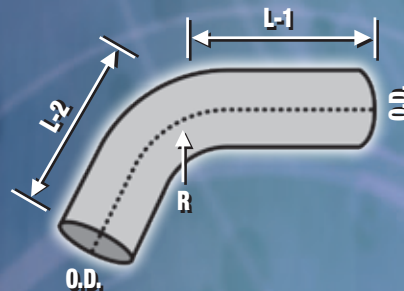
CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
45° ELBOWS (OD/OD)							
LEG LENGTH IS MEASURED FROM CENTER LINE							
--	11A-200-45A	--	OD/OD	2"	8"	8"	5"
--	11A-250-45A	--	OD/OD	2.5"	9"	9"	5"
--	11A-275-45A	--	OD/OD	2.75"	9"	9"	5"
11A-350-45	11A-350-45A	11A-350-45CP	OD/OD	3.5"	9.25"	9.25"	6"
11A-400-888	11A-400-888A	11A-400-888CP	OD/OD	4"	8"	8"	8"
11A-500-888	11A-500-888A	11A-500-888CP	OD/OD	5"	8"	8"	8"
--	11AS-500-45A	--	OD/OD	5"	8"	8"	8"
11A-500-45	11A-500-45A	11A-500-45CP	OD/OD	5"	12"	12"	8"

CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
45° ELBOWS - SHORT RADIUS (OD/OD)							
LEG LENGTH IS MEASURED FROM CENTER LINE							
--	11A-225-45A	--	OD/OD	2.25"	9"	9"	3"
11C-300-45	11C-300-45A	11C-300-45CP	OD/OD	3"	4"	4"	4"
11A-300-45	11A-300-45A	11A-300-45CP	OD/OD	3"	9"	9"	4"
11C-350-45	11C-350-45A	11C-350-45CP	OD/OD	3.5"	4.5"	4.5"	4"
11C-400-45	11C-400-45A	11C-400-45CP	OD/OD	4"	5"	5"	5"
--	11AS-400-45A	--	OD/OD	4"	6"	6"	5"
11A-400-45	11A-400-45A	11A-400-45CP	OD/OD	4"	9.25"	9.25"	5"
11C-500-45	11C-500-45A	11C-500-45CP	OD/OD	5"	6"	6"	6"

50° ELBOWS



CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
50° ELBOWS - SHORT RADIUS (ID/OD)				LEG LENGTH IS MEASURED FROM CENTER LINE			
11-300-50	11-300-50A	11-300-50CP	ID/OD	3"	4"	4"	4"
11-350-50	11-350-50A	11-350-50CP	ID/OD	3.5"	4"	4"	4"
11-400-50	11-400-50A	11-400-50CP	ID/OD	4"	4"	4"	5"
11-500-50	11-500-50A	11-500-50CP	ID/OD	5"	4"	4"	6"

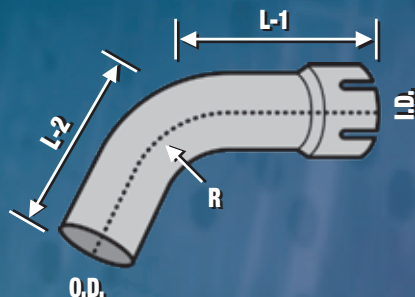


CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
50° ELBOWS - SHORT RADIUS (OD/OD)				LEG LENGTH IS MEASURED FROM CENTER LINE			
11A-300-50	11A-300-50A	11A-300-50CP	OD/OD	3"	4"	4"	4"
11A-350-50	11A-350-50A	11A-350-50CP	OD/OD	3.5"	4"	4"	4"
11A-400-50	11A-400-50A	11A-400-50CP	OD/OD	4"	4"	4"	5"
11A-500-50	11A-500-50A	11A-500-50CP	OD/OD	5"	4"	4"	6"

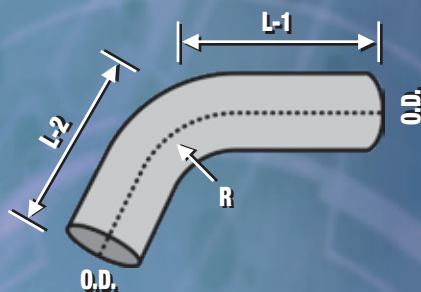
HEAVY DUTY

MANUFACTURING, INC.

60° ELBOWS

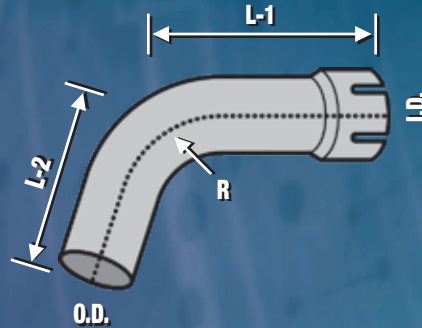


CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
60° ELBOWS - SHORT RADIUS (ID/OD)				LEG LENGTH IS MEASURED FROM CENTER LINE			
11-300-60	11-300-60A	11-300-60CP	ID/OD	3"	4"	4"	4"
11-350-60	11-350-60A	11-350-60CP	ID/OD	3.5"	4"	4"	4"
11-400-60	11-400-60A	11-400-60CP	ID/OD	4"	4"	4"	5"
11-500-60	11-500-60A	11-500-60CP	ID/OD	5"	4"	4"	6"

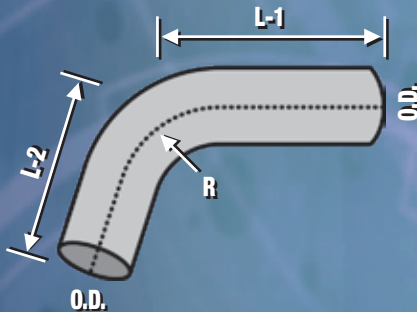


CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
60° ELBOWS - SHORT RADIUS (OD/OD)				LEG LENGTH IS MEASURED FROM CENTER LINE			
11A-300-60	11A-300-60A	11A-300-60CP	OD/OD	3"	4"	4"	4"
11A-350-60	11A-350-60A	11A-350-60CP	OD/OD	3.5"	4"	4"	4"
11A-400-60	11A-400-60A	11A-400-60CP	OD/OD	4"	4"	4"	5"
11A-500-60	11A-500-60A	11A-500-60CP	OD/OD	5"	4"	4"	6"

75° ELBOWS



CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
75° ELBOWS - SHORT RADIUS (ID/OD)				LEG LENGTH IS MEASURED FROM CENTER LINE			
11-300-75	11-300-75A	11-300-75CP	ID/OD	3"	4"	4"	4"
11-350-75	11-350-75A	11-350-75CP	ID/OD	3.5"	4"	4"	4"
11-400-75	11-400-75A	11-400-75CP	ID/OD	4"	4"	4"	5"
11-500-75	11-500-75A	11-500-75CP	ID/OD	5"	4"	4"	6"

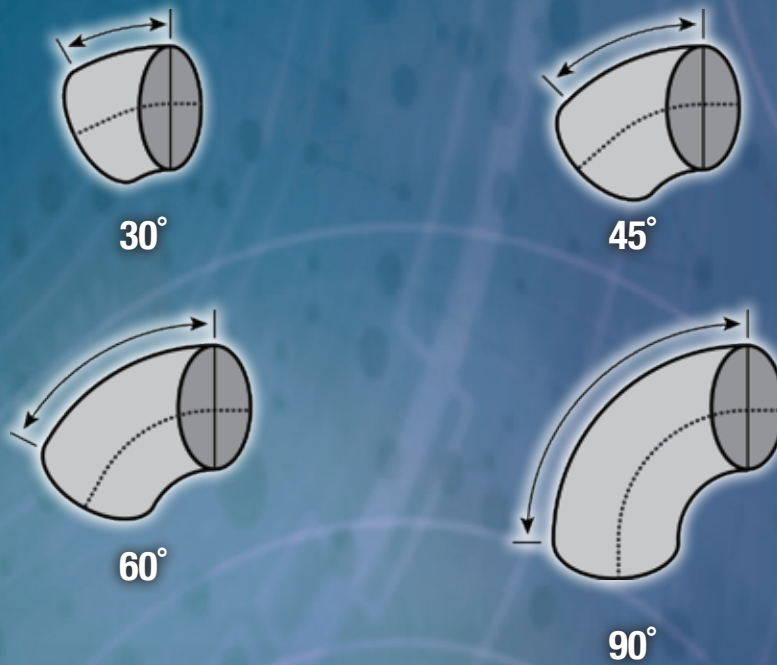


CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
75° ELBOWS - SHORT RADIUS (OD/OD)				LEG LENGTH IS MEASURED FROM CENTER LINE			
11A-300-75	11A-300-75A	11A-300-75CP	OD/OD	3"	4"	4"	4"
11A-350-75	11A-350-75A	11A-350-75CP	OD/OD	3.5"	4"	4"	4"
11A-400-75	11A-400-75A	11A-400-75CP	OD/OD	4"	4"	4"	5"
11A-500-75	11A-500-75A	11A-500-75CP	OD/OD	5"	4"	4"	6"

HEAVY DUTY

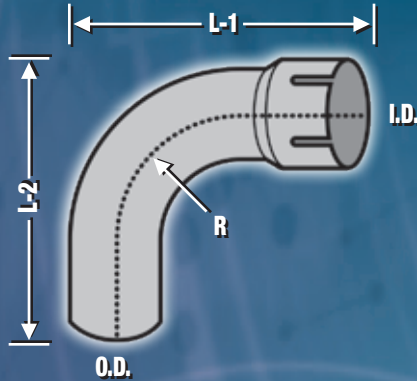
MANUFACTURING, INC.

TANGENT ENDS • SHORT RADIUS 30° • 45° • 60° • 90° ELBOWS



MATERIAL	DIAMETER	30°	45°	60°	90°	C/L RADIUS
ALUMINIZED	2.0"	12T-200-30A	12T-200-45A	12T-200-60A	12T-200-90A	2.0"
ALUMINIZED	2.25"	12T-225-30A	12T-225-45A	12T-225-60A	12T-225-90A	2.25"
ALUMINIZED	2.50"	12T-250-30A	12T-250-45A	12T-250-60A	12T-250-90A	2.50"
ALUMINIZED	2.75"	12T-275-30A	12T-275-45A	12T-275-60A	12T-275-90A	2.75"
ALUMINIZED	3.0"	12T-300-30A	12T-300-45A	12T-300-60A	12T-300-90A	3.0"
ALUMINIZED	3.5"	12T-350-30A	12T-350-45A	12T-350-60A	12T-350-90A	3.5"
CARBON	4.0"	12T-400-30	12T-400-45	12T-400-60	12T-400-90	4.0"
ALUMINIZED	4.0"	12T-400-30A	12T-400-45A	12T-400-60A	12T-400-90A	4.0"
CARBON	5.0"	12T-500-30	12T-500-45	12T-500-60	12T-500-90	6.0"
ALUMINIZED	5.0"	12T-500-30A	12T-500-45A	12T-500-60A	12T-500-90A	6.0"

90° ELBOWS - ID/OD

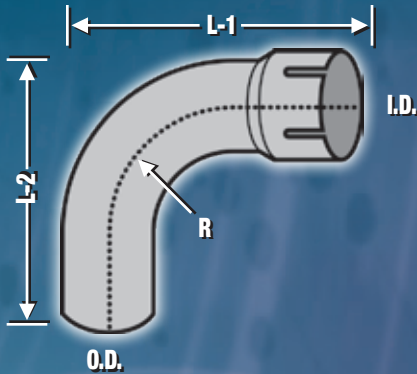


CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
90° ELBOWS (ID/OD)							
LEG LENGTH IS MEASURED FROM BACK OF ELBOW							
--	12-200FA	--	ID/OD	2"	11"	11"	4"
--	12-200A	--	ID/OD	2"	12"	12"	5"
--	12-250A	--	ID/OD	2.5"	12"	12"	5"
--	12-275FA	--	ID/OD	2.75"	12"	12"	5"
--	12-275A	--	ID/OD	2.75"	12"	12"	5"
12-300-10125	12-300-10125A	12-300-10125CP	ID/OD	3"	11.5"	13.5"	5"
12-350	12-350A	12-350CP	ID/OD	3.5"	16"	16"	6"
12-400-12126	12-400-12126A	12-400-12126CP	ID/OD	4"	12"	12"	6"
12-400-16168	12-400-16168A	12-400-16168CP	ID/OD	4"	16"	16"	8"
12-400	12-400A	12-400CP	ID/OD	4"	18"	18"	8"
12L-400	12L-400A	12L-400CP	ID/OD	4"	25"	32"	8"
12-512	12-512A	12-512CP	ID/OD	5"	12"	12"	8"
12-500-15158	12-500-15158A	12-500-15158CP	ID/OD	5"	17.5"	17.5"	8"
12-500	12-500A	12-500CP	ID/OD	5"	19.5"	19.5"	8"
12-500-18188	12-500-18188A	12-500-18188CP	ID/OD	5"	20.5"	20.5"	8"
12L-500	12L-500A	12L-500CP	ID/OD	5"	25"	32"	8"
--	12-600A	12-600CP	ID/OD	6"	26"	26"	10"

HEAVY DUTY

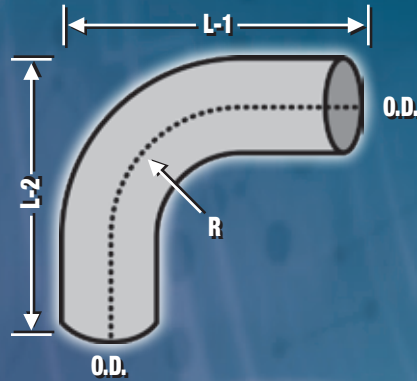
MANUFACTURING, INC.

90° ELBOWS - ID/OD SHORT RADIUS



CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
90° ELBOWS - SHORT RADIUS (ID/OD)				LEG LENGTH IS MEASURED FROM BACK OF ELBOW			
--	12-225FA	--	ID/OD	2.25"	10"	10"	3"
--	12-225A	--	ID/OD	2.25"	12"	12"	3"
--	12-250FA	--	ID/OD	2.5"	10"	10"	3"
12-388	12-388A	12-388CP	ID/OD	3"	8"	8"	4"
12-300FS	12-300FSA	12-300FSCP	ID/OD	3"	12"	10"	4"
12-300F	12-300FA	12-300FCP	ID/OD	3"	12"	12"	4"
12-300	12-300A	12-300CP	ID/OD	3"	14"	14"	4"
12-350-10104	12-350-10104A	12-350-10104CP	ID/OD	3.5"	10"	10"	4"
12-350FS	12-350FSA	12-350FSCP	ID/OD	3.5"	12"	10"	4"
12-350F	12-350FA	12-350FCP	ID/OD	3.5"	12"	12"	4"
12-400-664	12-400-664A	12-400-664CP	ID/OD	4"	8"	8"	4"
12-488	12-488A	12-488CP	ID/OD	4"	8.5"	8.5"	5"
12-410	12-410A	12-410CP	ID/OD	4"	10"	10"	5"
12-400FS	12-400FSA	12-400FSCP	ID/OD	4"	12"	10"	5"
12-400F	12-400FA	12-400FCP	ID/OD	4"	12"	12"	5"
12-415	12-415A	12-415CP	ID/OD	4"	15"	15"	5"
12-510	12-510A	12-510CP	ID/OD	5"	10"	10"	6"
12-500-85856	12-500-85856A	12-500-85856CP	ID/OD	5"	11"	11"	6"
12-500-996	12-500-996A	12-500-996CP	ID/OD	5"	12"	12"	6"
12-500-12126	12-500-12126A	12-500-12126CP	ID/OD	5"	14.5"	14.5"	6"
12-500F	12-500FA	12-500FCP	ID/OD	5"	15.5"	15.5"	6"

90° ELBOWS - OD/OD

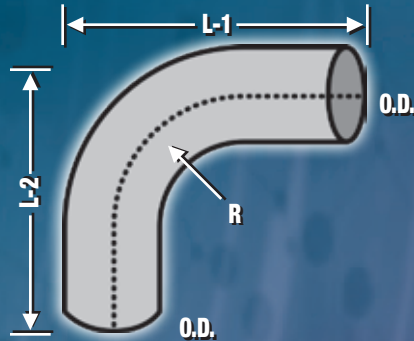


CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
90° ELBOWS - (OD/OD)							
				LEG LENGTH IS MEASURED FROM BACK OF ELBOW			
--	12B-200FA	--	OD/OD	2"	9"	9"	4"
--	12B-200A	--	OD/OD	2"	12"	12"	5"
--	12B-250A	--	OD/OD	2.5"	12"	12"	5"
--	12B-275A	--	OD/OD	2.75"	12"	12"	5"
12B-300-10106	12B-300-10106A	12B-300-10106CP	OD/OD	3"	10"	10"	6"
12B-350-12126	12B-350-12126A	12B-350-12126CP	OD/OD	3.5"	13.75"	13.75"	6"
12B-350	12B-350A	12B-350CP	OD/OD	3.5"	16"	16"	6"
12B-400-10106	12B-400-10106A	12B-400-10106CP	OD/OD	4"	12"	12"	6"
12B-400-12126	12B-400-12126A	12B-400-12126CP	OD/OD	4"	14"	14"	6"
12B-400	12B-400A	12B-400CP	OD/OD	4"	18"	18"	8"
12B-512	12B-512A	12B-512CP	OD/OD	5"	12"	12"	8"
12B-500-15158	12B-500-15158A	12B-500-15158CP	OD/OD	5"	17.5"	17.5"	8"
12B-500	12B-500A	12B-500CP	OD/OD	5"	19.5"	19.5"	8"
12B-500-18188	12B-500-18188A	12B-500-18188CP	OD/OD	5"	20.5"	20.5"	8"
--	12B-600A	12B-600CP	OD/OD	6"	26"	26"	10"

HEAVY DUTY

MANUFACTURING, INC.

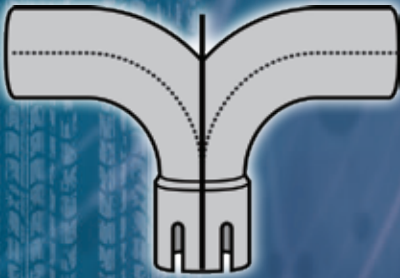
90° ELBOWS - OD/OD SHORT RADIUS



CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	STYLE	DIAMETER	LEG (L-1) LENGTH (Inches)	LEG (L-2) LENGTH (Inches)	C/L RADIUS (Inches)
90° ELBOWS - SHORT RADIUS (OD/OD)				LEG LENGTH IS MEASURED FROM BACK OF ELBOW			
--	12A-200A	--	OD/OD	2"	6.25"	6.25"	2"
--	12A-225A	--	OD/OD	2.25"	6.25"	6.25"	2.25"
--	12B-225A	--	OD/OD	2.25"	12"	12"	3"
--	12A-250A	--	OD/OD	2.5"	6.25"	6.25"	2.5"
--	12A-275A	--	OD/OD	2.75"	6.25"	6.25"	2.75"
12A-300	12A-300A	12A-300CP	OD/OD	3"	6.5"	6.5"	4"
12B-300F	12B-300FA	12B-300FCP	OD/OD	3"	12"	12"	4"
12A-330	12A-330A	12-330CP	OD/OD	3"	13.5"	13.5"	4"
12B-300	12B-300A	12B-300CP	OD/OD	3"	14"	14"	4"
12A-350F	12A-350FA	12A-350FCP	OD/OD	3.5"	7.25"	7.25"	4"
12A-350	12A-350A	12A-350CP	OD/OD	3.5"	12"	12"	4"
12B-350F	12B-350FA	12B-350FCP	OD/OD	3.5"	12"	12"	4"
12A-466	12A-466A	12A-466CP	OD/OD	4"	6"	6"	5"
12B-400-884	12B-400-884A	12B-400-884CP	OD/OD	4"	10"	10"	4"
12A-440	12A-440A	12A-440CP	OD/OD	4"	8"	8"	5"
12B-410	12B-410A	12B-410CP	OD/OD	4"	10"	10"	5"
12A-400	12A-400A	12-400CP	OD/OD	4"	10"	12"	5"
12B-400F	12B-400FA	12B-400FCP	OD/OD	4"	12"	12"	5"
12B-415	12B-415A	12B-415CP	OD/OD	4"	15"	15"	5"
12A-566	12A-566A	12A-566CP	OD/OD	5"	6"	6"	6"
12A-550	12A-550A	12A-550CP	OD/OD	5"	10.5"	10.5"	6"
12A-555	12A-555A	12A-555CP	OD/OD	5"	11.5"	15.5"	6"
12B-500-996	12B-500-996A	12B-500-996CP	OD/OD	5"	9"	9"	6"
12B-500-95956	12B-500-95956	12B-500-95956	OD/OD	5"	12"	12"	6"
12B-500-12126	12B-500-12126A	12B-500-12126CP	OD/OD	5"	14.5"	14.5"	6"
12B-500F	12B-500FA	12B-500FCP	OD/OD	5"	15.5"	15.5"	6"

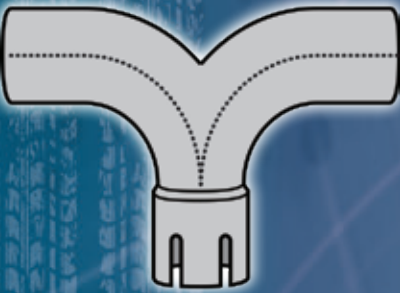
Y-DIVIDERS

FOR CONVERTING SINGLE EXHAUST SYSTEMS INTO DUALS



Y-DIVIDER WITH BRACKET

CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	STYLE	HEIGHT	WIDTH
14-300	14-300A	14-300CP	3.0	ID/OD/OD	10.0	16.0
14-350	14-350A	14-350CP	3.5	ID/OD/OD	12.0	18.5
14-400	14-400A	14-400CP	4.0	ID/OD/OD	12.0	18.5
14-500	14-500A	14-500CP	5.0	ID/OD/OD	14.0	25.0
14C-500	14C-500A	14C-500CP	5.0	OD/OD/OD	14.0	25.0

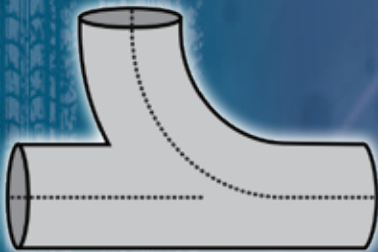


Y-DIVIDER WITHOUT BRACKET

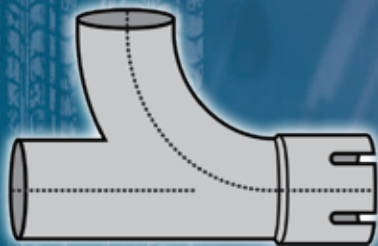
CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	STYLE	HEIGHT	WIDTH
14-400WOB	14-400WOB A	14-400WOB CP	4.0	ID/OD/OD	12.0	18.5
14-500WOB	14-500WOB A	14-500WOB CP	5.0	ID/OD/OD	12.0	18.5

CONVENTIONAL WYE PIPE

REPLACES O.E.M. PARTS



CARBON PART NUMBER	ALUMINIZED PART NUMBER	DIAMETER	STYLE	HEIGHT	WIDTH
14A-400	14A-400A	4.0	OD/OD/OD	12.0	16.5
14A-500	14A-500A	5.0	OD/OD/OD	12.0	18.0



CARBON PART NUMBER	ALUMINIZED PART NUMBER	DIAMETER	STYLE	HEIGHT	WIDTH
14B-400	14B-400A	4.0	ID/OD/OD	12.0	16.5
14B-500	14B-500A	5.0	ID/OD/OD	12.0	18.0

HEAVY DUTY

MANUFACTURING, INC.



GALVANIZED FLEX

- Durable hose with fair oxidation resistance.
- Capable of withstanding temperatures of up 600 °F (316 °C).
- Suitable for light duty applications.

STAINLESS FLEX 409 Standard 304 Non-Magnetic

- Engineered to provide durability and corrosion resistance.
- Capable of withstanding high temperatures such as those found in gas and diesel engine applications.

FLEXIBLE HOSE PART NUMBER GUIDE

DIAMETER	LENGTH		GALVANIZED PART NUMBER	GALVANIZED THICKNESS	STAINLESS STEEL PART NUMBER (409)	STAINLESS STEEL PART NUMBER (304)	STAINLESS STEEL THICKNESS
	INCH	FOOT					

10' FOOT LENGTHS

TYPE 'M' GALVANIZED

DIAMETER	INCH	FOOT	PART NUMBER	THICKNESS
2"	120"	10'	16-200-10M	Heavy Duty
2.25"	120"	10'	16-225-10M	Heavy Duty
2.5"	120"	10'	16-250-10M	Heavy Duty
2.75"	120"	10'	16-275-10M	Heavy Duty
3"	120"	10'	16-300-10M	Heavy Duty
3.5"	120"	10'	16-350-10M	Heavy Duty
4"	120"	10'	16-400-10M	Heavy Duty
5"	120"	10'	16-500-10M	Heavy Duty
6"	120"	10'	16-600-10M	Heavy Duty

TYPE 'S' STAINLESS

DIAMETER	INCH	FOOT	PART NUMBER (409)	PART NUMBER (304)	THICKNESS
2"	120"	10'	16-200-10S	16-200-310S	Heavy Duty
2.25"	120"	10'	16-225-10S	16-225-310S	Heavy Duty
2.5"	120"	10'	16-250-10S	16-250-310S	Heavy Duty
2.75"	120"	10'	16-275-10S	16-275-310S	Heavy Duty
3"	120"	10'	16-300-10S	16-300-310S	Heavy Duty
3.5"	120"	10'	16-350-10S	16-350-310S	Heavy Duty
4"	120"	10'	16-400-10S	16-400-310S	Heavy Duty
5"	120"	10'	16-500-10S	16-500-310S	Heavy Duty
6"	120"	10'	16-600-10S	16-600-310S	Heavy Duty

25' FOOT LENGTHS

TYPE 'M' GALVANIZED

DIAMETER	INCH	FOOT	PART NUMBER	THICKNESS
2"	300"	25'	16-200M	Heavy Duty
2.25"	300"	25'	16-225M	Heavy Duty
2.5"	300"	25'	16-250M	Heavy Duty
2.75"	300"	25'	16-275M	Heavy Duty
3"	300"	25'	16-300M	Heavy Duty
3.5"	300"	25'	16-350M	Heavy Duty
4"	300"	25'	16-400M	Heavy Duty
5"	300"	25'	16-500M	Heavy Duty
6"	300"	25'	16-600M	Heavy Duty

TYPE 'S' STAINLESS

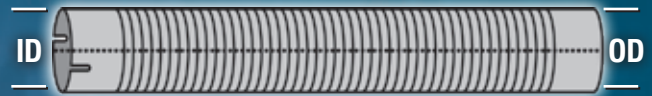
DIAMETER	INCH	FOOT	PART NUMBER (409)	PART NUMBER (304)	THICKNESS
2"	300"	25'	16-200S	16-200-3S	Heavy Duty
2.25"	300"	25'	16-225S	16-225-3S	Heavy Duty
2.5"	300"	25'	16-250S	16-250-3S	Heavy Duty
2.75"	300"	25'	16-275S	16-275-3S	Heavy Duty
3"	300"	25'	16-300S	16-300-3S	Heavy Duty
3.5"	300"	25'	16-350S	16-350-3S	Heavy Duty
4"	300"	25'	16-400S	16-400-3S	Heavy Duty
5"	300"	25'	16-500S	16-500-3S	Heavy Duty
6"	300"	25'	16-600S	16-600-3S	Heavy Duty

HEAVY DUTY

MANUFACTURING, INC.

FLEXIBLE STACK CONNECTORS (ID/OD)

DIAMETER	FLEXIBLE LENGTH	OVERALL INCHES	GALVANIZED PART NUMBER	STAINLESS PART NUMBER
3"	12"	18"	17-300-18	17-300-18SS
3"	30"	36"	17-300-36	17-300-36SS
3.5"	12"	18"	17-350-18	17-350-18SS
3.5"	30"	36"	17-350-36	17-350-36SS
4"	12"	18"	17-400-18	17-400-18SS
4"	30"	36"	17-400-36	17-400-36SS
5"	12"	18"	17-500-18	17-500-18SS
5"	30"	36"	17-500-36	17-500-36SS



FLEXIBLE HOSE • CUT LENGTHS

DIAMETER	LENGTH		GALVANIZED PART NUMBER	GALVANIZED THICKNESS	STAINLESS PART NUMBER (409)	STAINLESS PART NUMBER (304)	STAINLESS THICKNESS
	INCH	FOOT					
3"	12"	1'	17B-300-12	Heavy Duty	17B-300-12SS	17B-300-312SS	Heavy Duty
3"	18"	1.5'	17B-300-18	Heavy Duty	17B-300-18SS	17B-300-318SS	Heavy Duty
3"	24"	2'	17B-300-24	Heavy Duty	17B-300-24SS	17B-300-324SS	Heavy Duty
3"	36"	3'	17B-300-36	Heavy Duty	17B-300-36SS	17B-300-336SS	Heavy Duty
3"	48"	4'	17B-300-48	Heavy Duty	17B-300-48SS	17B-300-348SS	Heavy Duty
3"	60"	5'	17B-300-60	Heavy Duty	17B-300-60SS	17B-300-360SS	Heavy Duty
3.5"	12"	1'	17B-350-12	Heavy Duty	17B-350-12SS	17B-350-312SS	Heavy Duty
3.5"	18"	1.5'	17B-350-18	Heavy Duty	17B-350-18SS	17B-350-318SS	Heavy Duty
3.5"	24"	2'	17B-350-24	Heavy Duty	17B-350-24SS	17B-350-324SS	Heavy Duty
3.5"	36"	3'	17B-350-36	Heavy Duty	17B-350-36SS	17B-350-336SS	Heavy Duty
3.5"	48"	4'	17B-350-48	Heavy Duty	17B-350-48SS	17B-350-348SS	Heavy Duty
3.5"	60"	5'	17B-350-60	Heavy Duty	17B-350-60SS	17B-350-360SS	Heavy Duty
4"	12"	1'	17B-400-12	Heavy Duty	17B-400-12SS	17B-400-312SS	Heavy Duty
4"	18"	1.5'	17B-400-18	Heavy Duty	17B-400-18SS	17B-400-318SS	Heavy Duty
4"	24"	2"	17B-400-24	Heavy Duty	17B-400-24SS	17B-400-324SS	Heavy Duty
4"	36"	3'	17B-400-36	Heavy Duty	17B-400-36SS	17B-400-336SS	Heavy Duty
4"	48"	4'	17B-400-48	Heavy Duty	17B-400-48SS	17B-400-348SS	Heavy Duty
4"	60"	5'	17B-400-60	Heavy Duty	17B-400-60SS	17B-400-360SS	Heavy Duty
4"	72"	5'	17B-400-72	Heavy Duty	17B-400-72SS	17B-400-372SS	Heavy Duty
5"	12"	1'	17B-500-12	Heavy Duty	17B-500-12SS	17B-500-312SS	Heavy Duty
5"	18"	1.5'	17B-500-18	Heavy Duty	17B-500-18SS	17B-500-318SS	Heavy Duty
5"	24"	2'	17B-500-24	Heavy Duty	17B-500-24SS	17B-500-324SS	Heavy Duty
5"	36"	3'	17B-500-36	Heavy Duty	17B-500-36SS	17B-500-336SS	Heavy Duty
5"	48"	4'	17B-500-48	Heavy Duty	17B-500-48SS	17B-500-348SS	Heavy Duty
5"	60"	5'	17B-500-60	Heavy Duty	17B-500-60SS	17B-500-360SS	Heavy Duty
5"	72"	5'	17B-500-72	Heavy Duty	17B-500-72SS	17B-500-372SS	Heavy Duty



HEAVY DUTY

MANUFACTURING, INC.

HEAVY DUTY CLAMPS



GUILLOTINE
Forms 360° Seal



FLAT BAND .375 U-Bolt
with welded saddle



ROUND BAND .375 U-Bolt
with welded saddle



BAND CLAMP
The Original SealClamp

Size	Quantity Minimum (each)	Part Number									
		Guillotine Plain	Guillotine Zinc	Guillotine Chrome	Flat Band Plain	Flat Band Zinc	Flat Band Chrome	Round Band Plain	Round Band Zinc	Round Band Chrome	SealClamp (Donaldson) Stainless
FLAT BAND AND ROUND BAND CLAMPS ARE ALL WELDED SADDLE CLAMPS											
2.0	10	18-200	18-200Z	18-200CP	--	--	--	19A-200	19A-200Z	19A-200CP	20-200
2.25	10	18-225	18-225Z	18-225CP	--	--	--	19A-225	19A-225Z	19A-225CP	20-225
2.5	10	18-250	18-250Z	18-250CP	--	--	--	19A-250	19A-250Z	19A-250CP	20-250
2.75	10	18-275	18-275Z	18-275CP	--	--	--	19A-275	19A-275Z	19A-275CP	20-275
3.0	10	18-300	18-300Z	18-300CP	19-300	19-300Z	19-300CP	19A-300	19A-300Z	19A-300CP	20-300
3.25	10	18-325	18-325Z	18-325CP	--	--	--	--	--	--	--
3.5	10	18-350	18-350Z	18-350CP	19-350	19-350Z	19-350CP	19A-350	19A-350Z	19A-350CP	20-350
4.0	10	18-400	18-400Z	18-400CP	19-400	19-400Z	19-400CP	19A-400	19A-400Z	19A-400CP	20-400
4.5	10	18-450	18-450Z	18-450CP	--	--	--	--	--	--	--
4 7/16	10	18-476	18-476Z	18-476CP	--	--	--	--	--	--	--
5.0	10	18-500	18-500Z	18-500CP	19-500	19-500Z	19-500CP	19A-500	19A-500Z	19A-500CP	20-500
5.5	10	18-550	18-550Z	18-550CP	--	--	--	--	--	--	--
6.0	10	18-600	18-600Z	18-600CP	19-600	19-600Z	19-600CP	--	--	--	--

AccuSeal™ CLAMPS

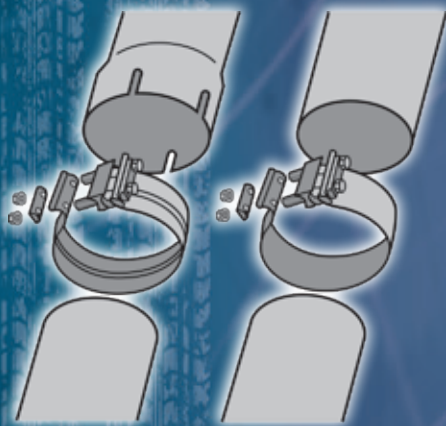
- New clamp technology provides simple, effective way to replace U-bolt and guillotine clamps.
- Create over a ton of clamping force without crushing pipes, resulting in a strong serviceable joint.
- Pre-assembled hardware.
- AccuSeal provides a leakproof joint when used with special "tagged slot," available on all special order mufflers.



Size	Quantity Minimum (each)	Aluminized	Stainless
3.0	10	18A-300	18A-300SS
3.5	10	18A-350	18A-350SS
4.0	10	18A-400	18A-400SS
5.0	10	18A-500	18A-500SS

TORCTITE CLAMPS • LAP JOINT AND BUTT JOINT

- Available in either the pre-formed TorcTite or EasySeal™ style, these clamps stop leaky gaps between both overlapping and butt joints. The unique reaction block design results in a strong, tightly sealed and reliable exhaust joint without the need for extra gaskets.
- The positive clamping action of the TorcTite butt style allows the butt style clamp to be used on equal size tubes without overlap. Butt style clamp to be used on equal sized tubes without overlap.
- Easy to install, without having to weld or disconnect your system.
- When installed clamps conform to the shape of the straight or flex pipe without distortion.
- Stainless parts have improved corrosion resistance while maintaining high temperature strength.

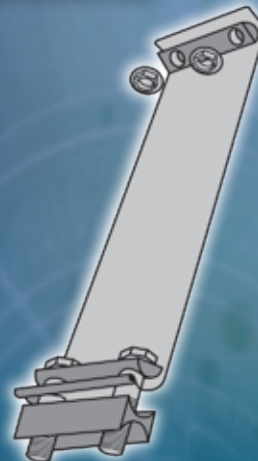


LAP JOINT CLAMP BUTT JOINT CLAMP

SIZE	QUANTITY (EACH)	PREFORMED LAP JOINT		BUTT JOINT	
		ALUMINIZED PART NUMBER	STAINLESS PART NUMBER	ALUMINIZED PART NUMBER	STAINLESS PART NUMBER
2.00"	10	20A-200	20S-200	20B-200	20BS-200
2.25"	10	20A-225	20S-225	20B-225	20BS-225
2.50"	10	20A-250	20S-250	20B-250	20BS-250
2.75"	10	20A-275	20S-275	20B-275	20BS-275
3.00"	10	20A-300	20S-300	20B-300	20BS-300
3.50"	10	20A-350	20S-350	20B-350	20BS-350
4.00"	10	20A-400	20S-400	20B-400	20BS-400
5.00"	10	20A-500	20S-500	20B-500	20BS-500
6.00"	10	--	--	20B-600	20BS-600

EasySeal™ WIDE BAND CLAMP

- Flat, universal wide band clamp.
- Bright 304 stainless steel band material that looks great with chrome.
- All clamps come with longer bolts and preattached hardware.
- Individually boxed with preattached hardware.

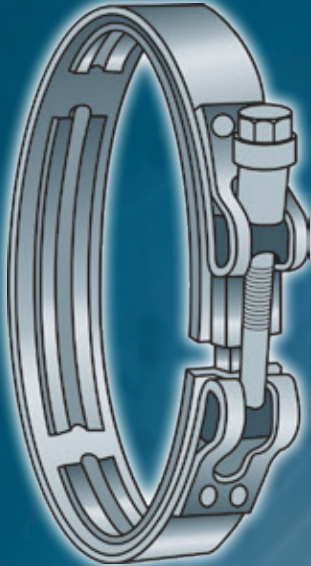


SIZE	QUANTITY (EACH)	STAINLESS EasySeal
2.00"	10	20-200ES
2.25"	10	20-225ES
2.50"	10	20-250ES
2.75"	10	20-275ES
3.00"	10	20-300ES
3.50"	10	20-350ES
4.00"	10	20-400ES
5.00"	10	20-500ES
6.00"	10	20-600ES

HEAVY DUTY

MANUFACTURING, INC.

V-BAND CLAMPS



Part Number	Tube (OD) See Note	APPLICATION	A	B	C	D	E	F	Max Flange (OD)
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CUMMINS

21-275	2.75"	Cummins 'B'	26°	3.22	0.262	0.85	0.14	0.050	3.13
21-213	3.00"	V903	40°	3.88	0.400	0.88	0.28	0.050	3.76
21-253 1/2	3.50"	Cummins 'C'	40°	4.12	0.262	0.67	0.14	0.050	4.03
21-113 1/2	3.50"	VT555	40°	4.25	0.400	0.88	0.28	0.050	4.16
21-114	4.00"	6-71T	21°	4.81	0.207	0.88	0.04	0.077	4.25
21-374	4.00"	L10 / M11	40°	4.75	0.400	0.88	0.28	0.050	4.63
21-413	4.44"	8.3 #39052216 HX40 Turbo	26°	4.13	0.239	0.75	0.26	0.035	4.69
21-225	5.00"	Cummins	40°	5.25	0.262	0.75	0.26	0.500	5.88
21-532	5.00"	(04.07) 5.9 #52121285AA	24°	5.33	0.262	0.75	0.24	0.050	5.53
21-215	5.00"	T50 Turbo / M11	40°	5.88	0.400	0.88	0.28	0.050	5.79

CATERPILLAR

21-233 1/2	3.50"	3208T	40°	4.19	0.400	0.88	0.28	0.050	4.07
21-374	4.00"	3126T / 3176T	40°	4.75	0.400	0.88	0.28	0.050	4.63

DETROIT DIESEL

21-364	4.00"	8.2T	21°	2.88	0.207	0.75	0.28	0.050	2.75
21-113	3.00"	6V53-71	21°	3.82	0.207	0.88	0.28	0.080	3.26
21-113 1/2	3.50"	8V71-671	21°	4.50	0.207	0.88	0.28	0.080	4.38
21-384	4.00"	8.2N	21°	4.06	0.239	0.88	0.29	0.075	3.94
21-494	4.00"	12V71-6.71	21°	4.49	0.207	0.06	0.28	0.077	4.39
21-364	4.00"	8.2T	21°	4.75	0.158	0.88	0.31	0.075	4.63
21-114	4.00"	6-71T	21°	4.81	0.207	0.88	0.04	0.077	4.25
21-125	4.88"	6V92T / 8V71T / 8V92T	26°	5.25	0.262	0.75	0.14	0.050	5.16

INTERNATIONAL

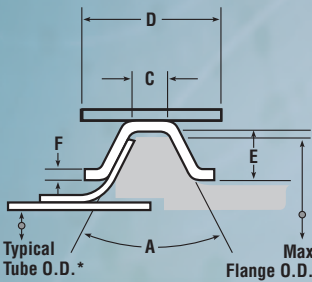
21-243 1/2	3.50"	DT466 & Connector Ends	21°	4.31	0.207	0.88	0.28	0.080	4.19
21-114	4.00"	DT446	21°	4.81	0.207	0.88	0.04	0.077	4.25

MACK

21-344	4.00"	11ME29	40°	4.94	0.181	0.75	0.28	0.062	4.82
21-314	4.00"	48RU2341	16°	4.61	0.156	0.75	0.22	0.050	4.49
21-325	5.00"	11ME241	40°	5.32	0.262	0.75	0.14	0.050	5.88
21-192	5.00"	8V71 - Special Manifold	21°	5.87	0.365	0.88	0.30	0.050	5.75

AIR RESEARCH

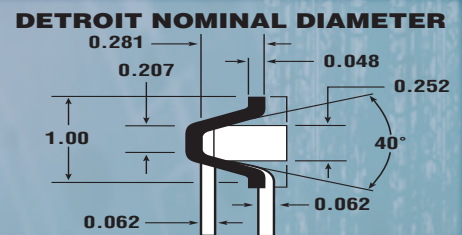
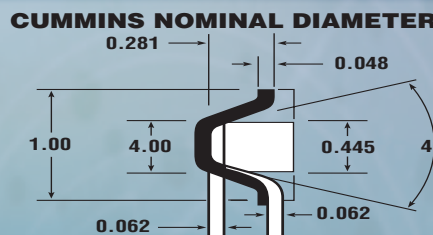
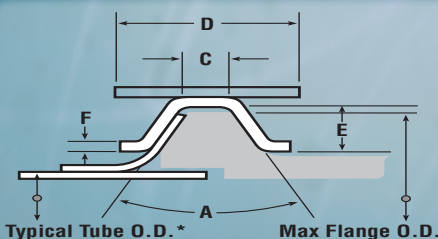
21-545	5.00"	T-1899 / TH08A64	21°	5.43	0.262	0.75	0.14	0.030	5.32
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- These clamps are designed to accommodate the majority of engine applications and are available in a variety of sizes.

NOTE:

This diameter should not be used to select a V-Band clamp. It refers to a typical exhaust pipe sizing which can vary depending on the vehicle or engine model.



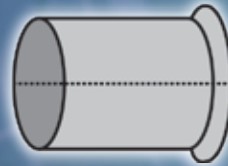
FLARED CONNECTORS



ID CONNECTORS

Designed for use with V-Band Clamps

CARBON PART NUMBER	ALUMINIZED PART NUMBER	DIMENSIONS			CAT	CUM	DET	APPLICATION	USE CLAMP
		ID / ID	LENGTH	DEG					
FLARED CONNECTOR - TYPE 1									
26-302	26-302A	3.00	3.00	22°	--	--	●	6V-71	21-113
26-352	26-352A	3.50	3.00	22°	--	--	--	--	--
26-402	26-402A	4.00	3.00	22°	--	--	●	6-71 / 12V-71	21-494
26-502	26-502A	5.00	3.00	22°	--	--	--	--	--
26-351	26-351A	3.50	1.00	90°	--	--	--	Mack Flange	--

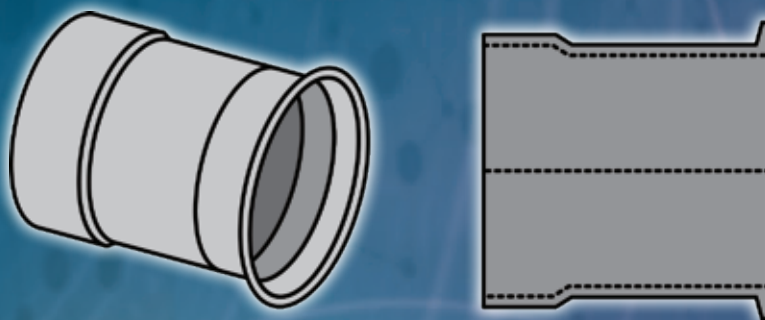


OD CONNECTORS

Designed for use with V-Band Clamps

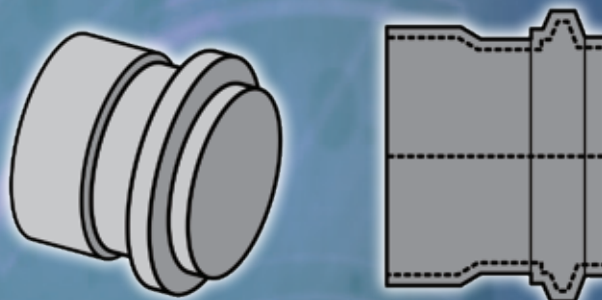
CARBON PART NUMBER	ALUMINIZED PART NUMBER	DIMENSIONS			CAT	CUM	DET	APPLICATION	USE CLAMP
		OD / OD	LENGTH	DEG					
FLARED CONNECTOR - OD									
26-300	26-300A	3.00	4.25	22°	--	--	--	--	--
26-350	26-350A	3.50	4.25	22°	●	--	--	3208T	21-233½
26-400	26-400A	4.00	4.25	22°	●	--	●	3126T / 8.2LT	21-364
26-500	26-500A	5.00	4.25	22°	--	--	--	--	21-215
26-506	26-506A	5.00	6.25	20°	--	●	--	M-11 / T-50 Turbo	21-215
26-305	26-305A	3.00	5.00	45°	--	--	●	53 Series	21-113
26-355	26-355A	3.50	5.00	45°	--	--	●	--	21-243½
26-405	26-405A	4.00	5.00	45°	--	●	--	250 / L-10	21-374
26-505	26-505A	5.00	5.00	45°	--	●	--	--	--

MARMON FLARED ADAPTERS



STAINLESS PART NUMBER	DIMENSIONS		
	ID / ID	LENGTH	FLARE
26FL-300SS	3.0	4.0	20°
26FL-350SS	3.5	4.0	20°
26FL-400SS	4.0	4.0	20°
26FL-500SS	5.0	4.0	20°

MARMON FULL ADAPTERS

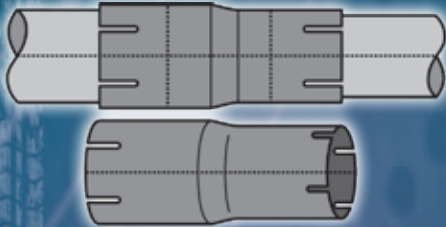


ALUMINI PART NUMBER	DIMENSIONS		
	OD / OD	LENGTH	DEG
26FA-300SS	3.0	3.0	20°
26FA-350SS	3.5	3.0	20°
26FA-400SS	4.0	3.0	20°
26FA-500SS	5.0	3.0	20°

REDUCERS AND EXPANDERS

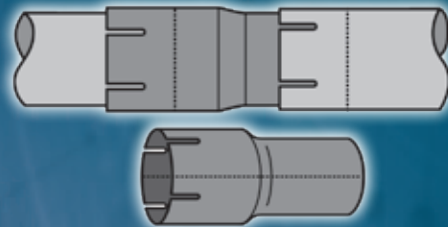
ID - ID

Reduces O.D. pipe of different sizes



ID - OD

Reduces O.D. pipe to smaller ID pipe

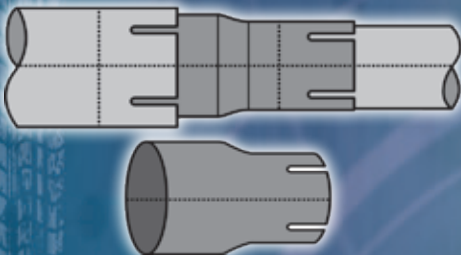


CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	ID	ID	LENGTH
--	28-358A	28-358CP	3.0	2.625	6.0
--	28-375A	28-375CP	3.0	2.75	6.0
28-353	28-353A	28-353CP	3.5	3.0	6.0
28-430	28-430A	28-430CP	4.0	3.0	6.0
28-435	28-435A	28-435CP	4.0	3.5	6.0
28-540	28-540A	28-540CP	5.0	4.0	8.0
28-640	28-640A	28-640CP	6.0	4.0	8.0
--	28-650A	28-650CP	6.0	5.0	8.0

CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	ID	OD	LENGTH
29A-353	29A-353A	29A-353CP	3.5	3.0	6.0
29A-430	29A-430A	29A-430CP	4.0	3.0	6.0
29A-435	29A-435A	29A-435CP	4.0	3.5	6.0
29A-540	29A-540A	29A-540CP	5.0	4.0	8.0
--	29A-650A	29A-650CP	6.0	5.0	8.0

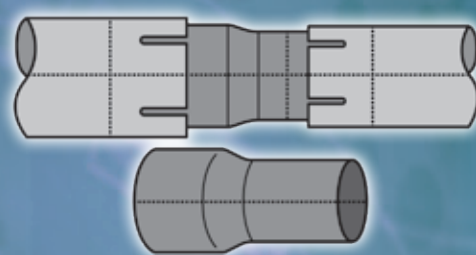
OD - ID

Reduces O.D. pipe of different sizes



OD - OD

Reduces I.D. pipe of different sizes



CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	OD	ID	LENGTH
--	29-350A	29-350CP	3.0	2.5	6.0
--	29-375A	29-375CP	3.0	2.75	6.0
29-353	29-353A	29-353CP	3.5	3.0	6.0
29-430	29-430A	29-430CP	4.0	3.0	6.0
29-435	29-435A	29-435CP	4.0	3.5	6.0
29-540	29-540A	29-540CP	5.0	4.0	8.0
--	29-650A	29-650CP	6.0	5.0	8.0

CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	OD	OD	LENGTH
29B-430	29B-430A	29B-430CP	4.0	3.0	6.0
29B-435	29B-435A	29B-435CP	4.0	3.5	6.0
29B-540	29B-540A	29B-540CP	5.0	4.0	6.0

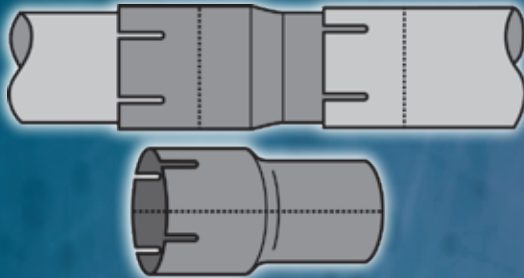
HEAVY DUTY

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CONNECTOR ENDS AND COUPLERS

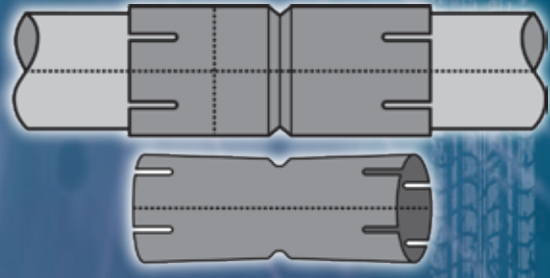
ID - OD

Connects I.D. and O.D. pipe of same size



ID - ID

Connects I.D. and I.D. pipe of same size

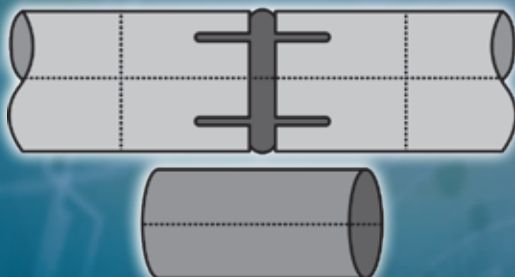


CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	ID	OD	LENGTH
--	30-200A	--	2.00	2.00	6.00
--	30-225A	--	2.25	2.25	6.00
--	30-250A	--	2.50	2.50	6.00
--	30-275A	--	2.75	2.75	6.00
30-300	30-300A	30-300CP	3.00	3.00	6.00
30-350	30-350A	30-350CP	3.50	3.5	6.00
30-400	30-400A	30-400CP	4.00	4.00	6.00
30-500	30-500A	30-500CP	5.00	5.00	6.00
--	30-600A	30-600CP	6.00	6.00	5.00

CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	ID	ID	LENGTH
--	31-200A	--	2.00	2.00	8.00
--	31-225A	--	2.25	2.25	8.00
--	31-250A	--	2.50	2.5	8.00
--	31-275A	--	2.75	2.75	8.00
31-300	31-300A	31-300CP	3.00	3.00	8.00
31-350	31-350A	31-350CP	3.50	3.50	8.00
31-400	31-400A	31-400CP	4.00	4.00	8.00
31S-400	31S-400A	31S-400CP	4.00	4.00	6.00
31-500	31-500A	31-500CP	5.00	5.00	8.00
31S-500	31S-500A	31S-500CP	5.00	5.00	6.00
--	31-600A	31-600CP	6.00	6.00	6.00

OD - OD

Connects O.D. pipe of same size



CARBON PART NUMBER	ALUMINIZED PART NUMBER	CHROME PART NUMBER	OD	OD	LENGTH
--	31A-200A	--	2.00	2.00	8.00
--	31A-225A	--	2.25	2.25	8.00
--	31A-250A	--	2.50	2.50	8.00
--	31A-275A	--	2.75	2.75	8.00
31A-300	31A-300A	31A-300CP	3.00	3.00	8.00
31A-350	31A-350A	31A-350CP	3.50	3.50	8.00
31A-400	31A-400A	31A-400CP	4.00	4.00	8.00
31AS-400	31AS-400A	31AS-400CP	4.00	4.00	6.00
31A-500	31A-500A	31A-500CP	5.00	5.00	8.00
31AS-500	31AS-500A	31AS-500CP	5.00	5.00	6.00

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OEM REPLACEMENT PARTS SECTION

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OEM REPLACEMENT PARTS • FREIGHTLINER



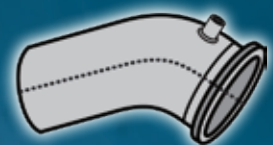
12F-15077A



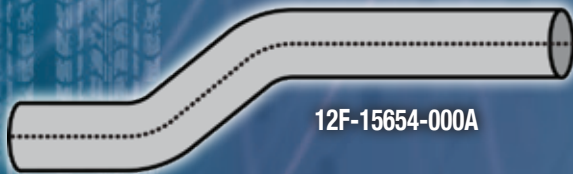
12F-15077-003A



12F-15653A



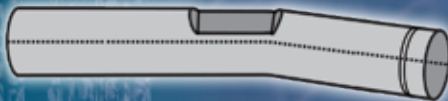
12F-16460-009A



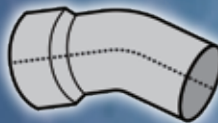
12F-15654-000A



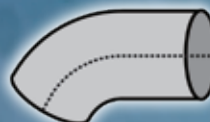
12F-15654-001A



12F-16621-001A



12F-16639-001A



12F-16759-012A



12F-17094-012A
12F-17094-014A
12F-17094-016A
12F-17094-030A with Pyro Fitting

ALUMINIZED PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION	FITS
12F-15077A	5"	OD/OD	04-15077-000	Right Side - Vertical Elbow	FLD Model
12F-15077-003A	5"	OD/OD	04-15077-003	Left Side - Vertical Elbow	FLD Model
12F-15653A	5"	OD/OD	04-15653-000	Right Side - Vertical Elbow	FLD Model
12F-15654-000A	5"	OD/OD	04-15654-000	Double Bend 25° x 65.5" Intermediate Pipe	FLD Model
12F-15654-001A	5"	OD/OD	04-15654-001	Double Bend 23° x 85.5" Intermediate Pipe	FLD Model
12F-16460-009A	5"	OD	04-16460-009	Turbo Pipe with Pyro Fitting	Classic Model
12F-16621-001A	5"	ID/OD	04-16621-001	Intermediate Pipe	Classic Model
12F-16639-001A	5"	ID/OD	04-16639-001	Elbow - extends Turbo Pipe	Classic Model
12F-16759-012A	4"	OD/OD	04-16759-012	Exhaust Tail Pipe	Classic Model
12F-17094-012A	5"	OD	04-17094-012	Turbo Pipe	Turbo Pipe - Fits FLD Model
12F-17094-014A	5"	OD	04-17094-014	Turbo Pipe	Turbo Pipe - Fits FLD Model
12F-17094-016A	5"	OD	04-17094-016	Turbo Pipe	Turbo Pipe - Fits FLD Model
12F-17094-030A	5"	OD	04-17094-030	Turbo Pipe with Pyro Fitting	Turbo Pipe - Fits FLD Model

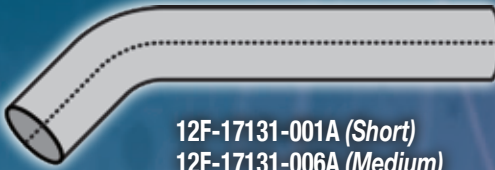
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OEM REPLACEMENT PART NUMBERS • FREIGHTLINER



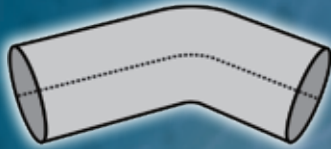
12F-17123-024A



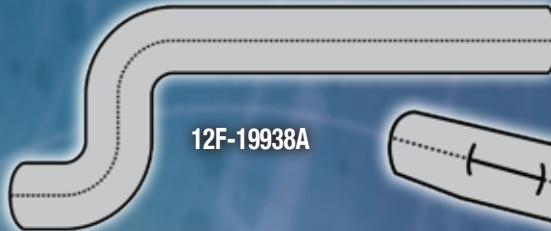
12F-17131-001A (Short)
12F-17131-006A (Medium)
12F-17131-009A (Long)



12F-17476A - 12F-17476CP



12F-17555A



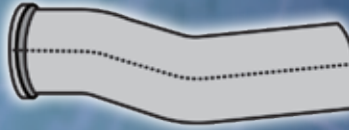
12F-19938A



12F-20001A



12F-21015A



12F-21016-002A



12F-21016-008A

ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION	FITS
12F-17123-024A	--	5"	OD	04-17123-024	Turbo Pipe	Century & Columbia Model
12F-17131-001A	--	5"	OD/OD	04-17131-001	Intermediate Pipe - Short	Century & Columbia Model
12F-17131-006A	--	5"	OD/OD	04-17131-006	Intermediate Pipe - Medium	Century & Columbia Model
12F-17131-009A	--	5"	OD/OD	04-17131-009	Intermediate Pipe - Long	Century & Columbia Model
12F-17476A	--	5"	OD/OD	A04-17476-000	Exhaust Elbow with Bracket	Century & Columbi Model
--	12F-17476CP	5"	OD/OD	A04-17476-001	Exhaust Elbow with Bracket	Century & Columbi Model
12F-17555A	--	5"	OD/OD	04-17555-000	Exhaust Elbow	Century Model
12F-19938A	--	5"	OD/OD	04-19938-000	Exhaust Pipe - Multi-Bends	FL-70 Model & M2-106-113
12F-20001A	--	5"	OD	04-20001-000	Turbo Pipe - Multi-Bends	FL-70 Model with CAT Engine
12F-21015A	--	4"	OD	04-21015-000	Turbo Pipe	Bus. Class - M2-106 & 112
12F-21016-002A	--	5"	OD	04-21016-002	Turbo Pipe - Dbl. Bend 28°/25°	Century & Columbia Model
12F-21016-008A	--	5"	OD	04-21016-008	Turbo Pipe - Dbl. Bend 55°/60°	Columbia Model

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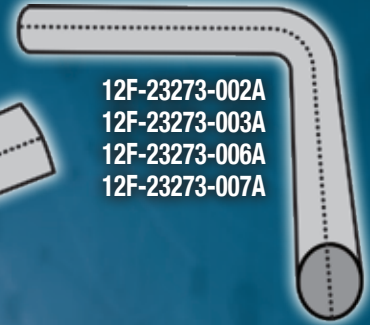
OEM REPLACEMENT PARTS • FREIGHTLINER



12F-21016-009A



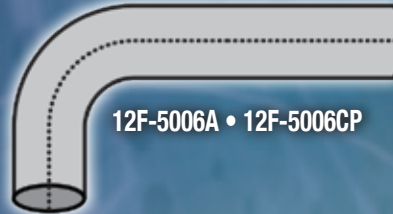
12F-22338A



12F-23273-002A
12F-23273-003A
12F-23273-006A
12F-23273-007A



12F-24200-000A



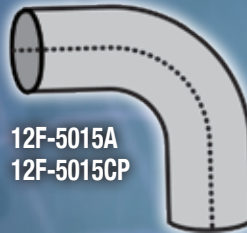
12F-5006A • 12F-5006CP



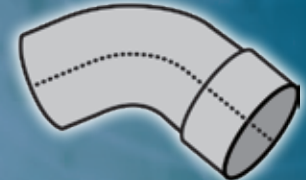
12F-5012A • 12F-5012CP



12F-5013A • 12F-5013CP



12F-5015A
12F-5015CP



12F-5284A • 12F-5284CP

ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION	FITS
12F-21016-009A	--	5"	OD	04-21016-009	Turbo Pipe - Dbl. Bend 60°/58°	Columbia Model
12F-22338A	--	5"	OD/OD	04-22338-000	Exhaust Pipe	Sterling Trucks
12F-23273-002A	--	3.5"	OD/OD	04-23273-002	Exhaust Pipe	Various Freightliner Models
12F-23273-003A	--	3.5"	OD/OD	04-23273-003	Exhaust Pipe	Various Freightliner Models
12F-23273-006A	--	3.5"	OD/OD	04-23273-006	Exhaust Pipe	Various Freightliner Models
12F-23273-007A	--	3.5"	OD/OD	04-23273-007	Exhaust Pipe	Various Freightliner Models
12F-24200-000A	--	3.5"	OD/OD	A04-24200-000	Exhaust Pipe	Various Freightliner Models
12F-5006A	--	5"	ID/OD	04-09833-006	Exhaust Pipe	Various Freightliner Models
--	12F-5006CP	5"	ID/OD	04-09833-007	Exhaust Pipe	Various Freightliner Models
12F-5012A	--	5"	OD/OD	04-09586-012	Exhaust Pipe	FLC Conventional
--	12F-5012CP	5"	OD/OD	04-09657-012	Exhaust Pipe	FLC Conventional
12F-5013A	--	5"	OD/OD	04-09586-013	Exhaust Pipe	FLC Conventional
--	12F-5013CP	5"	OD/OD	04-09657-013	Exhaust Pipe	FLC Conventional
12F-5015A	--	5"	OD/OD	04-09586-015	Exhaust Pipe	FLC Conventional
--	12F-5015CP	5"	OD/OD	04-09657-015	Exhaust Pipe	FLC Conventional
12F-5284A	--	5"	ID/OD	04-1284-000	Exhaust Pipe	FLC Conventional
--	12F-5284CP	5"	ID/OD	04-1284-001	Exhaust Pipe	FLC Conventional

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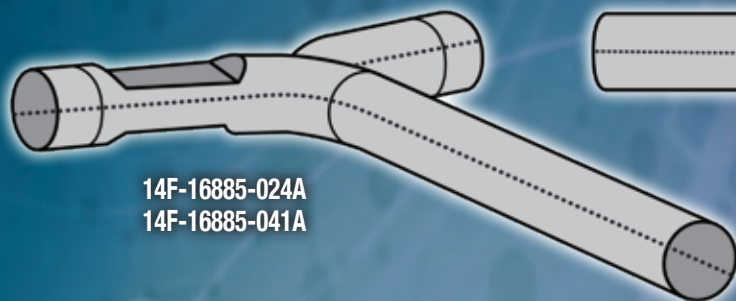
OEM REPLACEMENT PARTS · FREIGHTLINER



14F-5104A



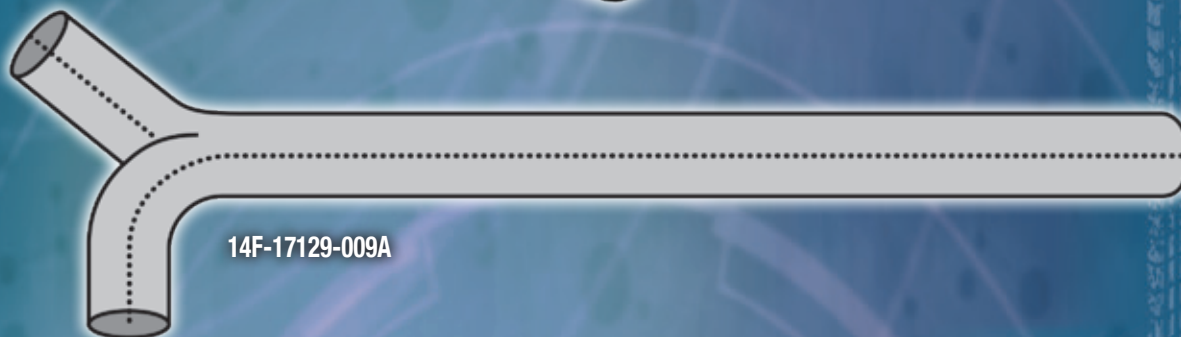
12F-5099A
12F-5099CP



14F-16885-024A
14F-16885-041A



14F-5974A



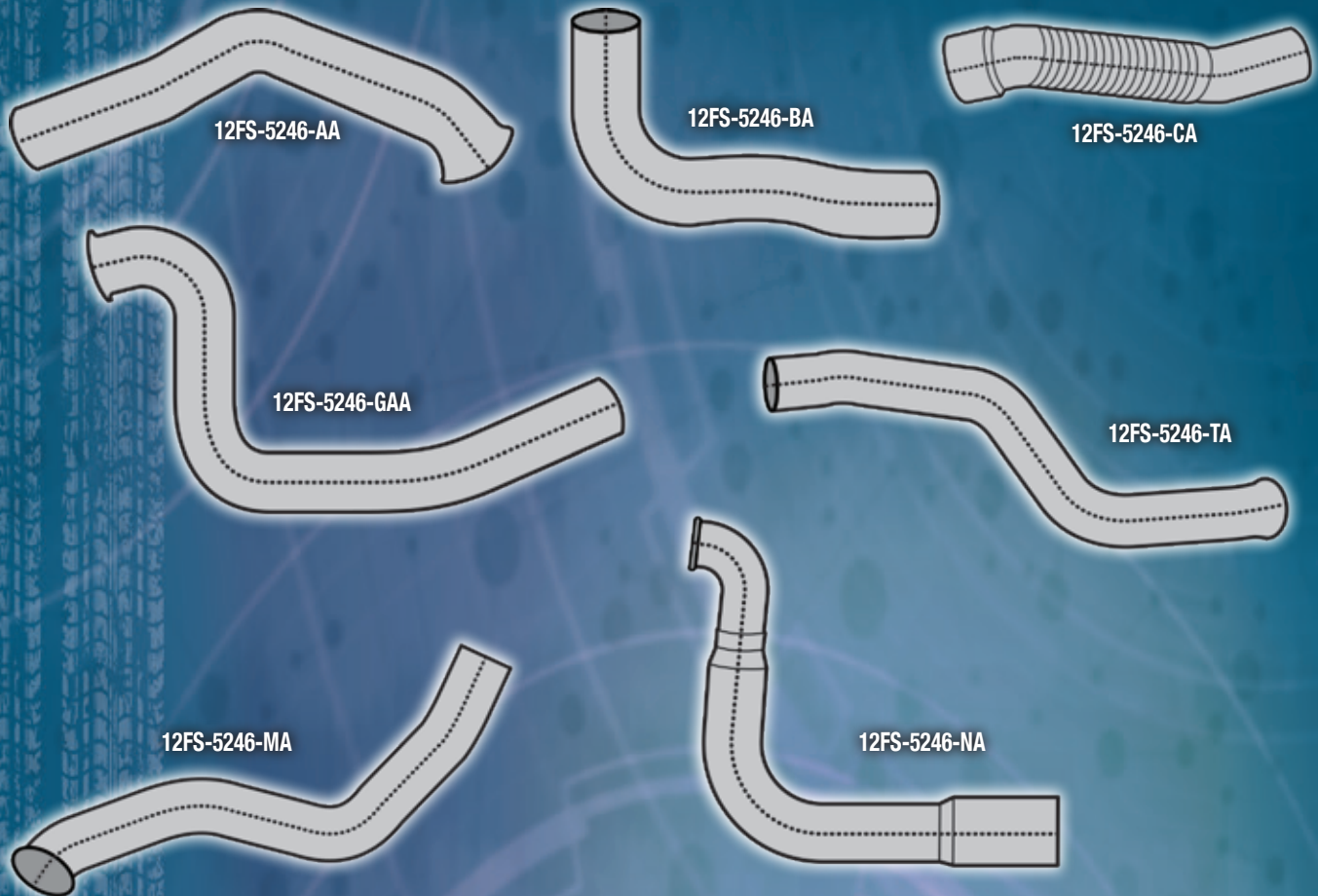
14F-17129-009A

ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12F-5099A	--	5"	OD/OD	04-12099-000	Exhaust Elbow Fits FLC Conventional
--	12F-5099CP	5"	OD/OD	04-12099-001	Exhaust Elbow Fits FLC Conventional
14F-5104A	--	5"	ID/OD/OD	A04-12104-000	Y-Divider FLC Conv.
14F-5974A	--	5"	ID/OD/OD	A04-13974-000	Y-Divider
14F-16885-024A	--	5"	OD/ID/ID	04-16885-024	Y-Dividers Classic Model
14F-16885-041A	--	5"	OD/ID/ID	04-16885-041	Y-Divider Fits Century & Columbia Model
14F-17129-009A	--	5"	OD/OD	04-17129-009	Y-Divider Fits Century & Columbia Model

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OEM REPLACEMENT PARTS · FORD · STERLING



ALUMINIZED PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12FS-5246-AA	3.5"	OD	F0HZ-5246A	Turbo & Intermediate Pipe
12FS-5246-BA	5"	ID/OD	E7HZ-5246B	Exhaust Elbow 90°
12FS-5246-GAA	4"	OD	F7HS-5246GA	Turbo & Intermediate Pipe
12FS-5246-MA	5"	OD	E0HZ-5246M	Turbo & Intermediate Pipe
12FS-5246-NA	Multiple	ID	F3HZ-5246N	Turbo & Intermediate Pipe
12FS-5246-TA	5"	OD	F1HZ-5246T	Turbo & Intermediate Pipe

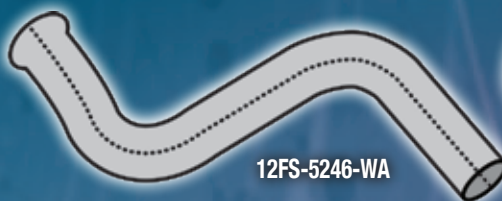
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OEM REPLACEMENT PARTS · FORD · STERLING



12FS-5246-VA



12FS-5246-WA



12FS-5246-XA



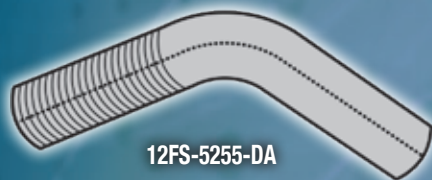
12FS-5246-ZMA



12FS-5255-ABAA



12FS-5255-CA



12FS-5255-DA



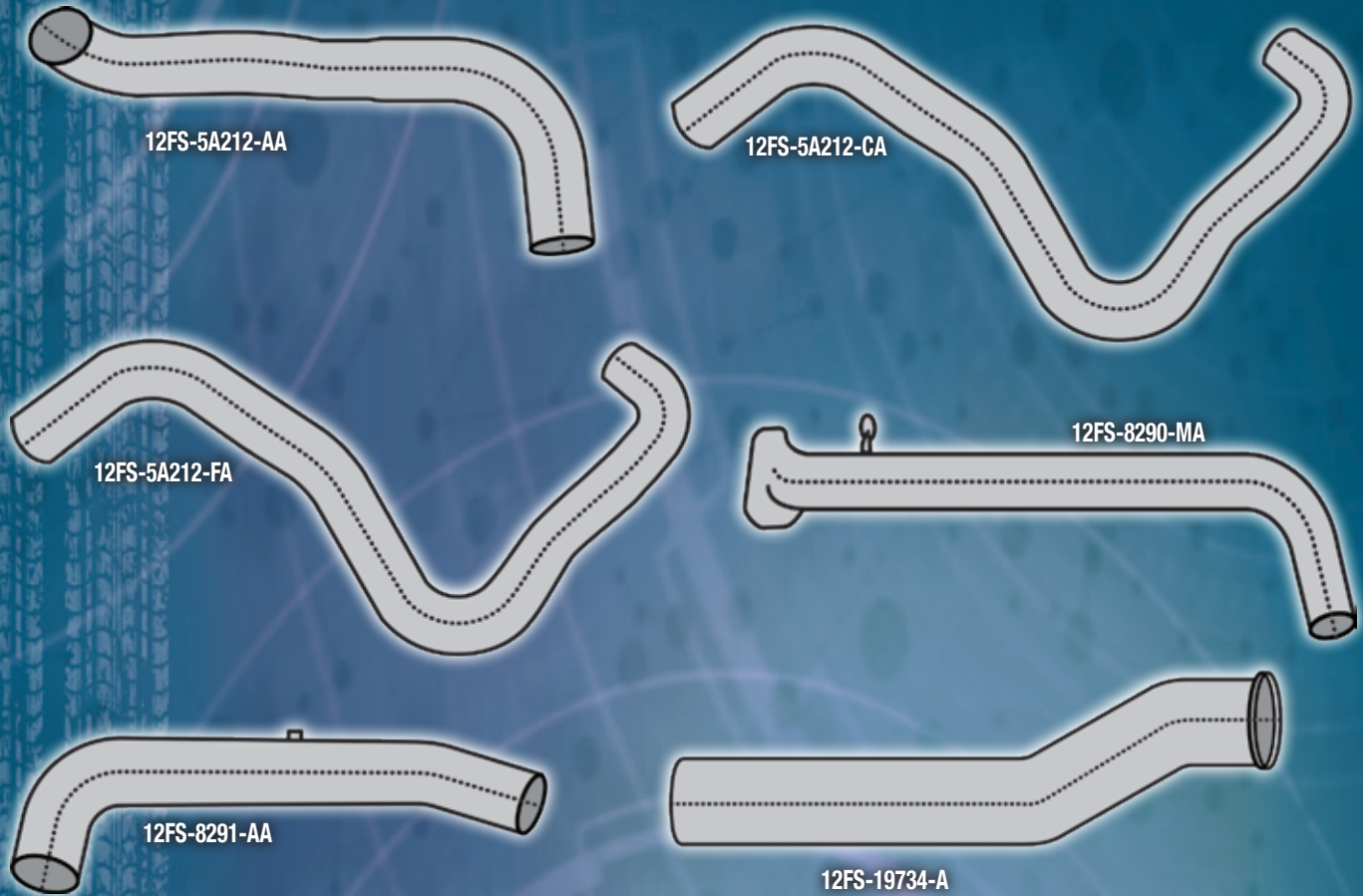
12FS-5255-YA

ALUMINIZED PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12FS-5246-VA	5"	ID/OD	E8HZ-5246V	Exhaust Elbow
12FS-5246-WA	5"	OD	F4HZ-5246W	Turbo & Intermediate Pipe
12FS-5246-XA	3.5"	OD	E8HZ-5246X	Turbo & Intermediate Pipe
12FS-5246-ZMA	4"	OD	F3HZ-5246M	Turbo & Intermediate Pipe
12FS-5255-ABAA	4"	OD	F6HZ-5255ABA	Turbo Pipe
12FS-5255-CA	4"	OD/OD	E7HZ-5255C	Exhaust Elbow
12FS-5255-DA	4"	OD	E7HZ-5255D	Exhaust Pipe
12FS-5255-YA	4"	OD	E3HZ-5255Y	Turbo & Intermediate Pipe

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ALUMINIZED PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12FS-5A212-AA	4"	OD	E5HZ-5A212A	Turbo & Intermediate Pipe
12FS-5A212-CA	4"	OD/OD	E5HZ-5A212C	Exhaust Pipe - Multi-Bend
12FS-5A212-FA	4"	OD/OD	E5HZ-5A212F	Exhaust Pipe - Multi-Bend
12FS-8290-MA	2"	OD	F4HZ-8290M	Exhaust Pipe - Multi-Bend
12FS-8291-AA	2.5"	OD/OD	F1HZ-8291A	Exhaust Pipe - Multi-Bend
12FS-19734-A	4"	OD	04-19734-000	Turbo Pipe with Double 28° / 31° Bends

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OEM REPLACEMENT PARTS • KENWORTH



12K-107LA
12K-107LCP



12K-107RA
12K-107RCP



12K-5419A
12K-5419CP



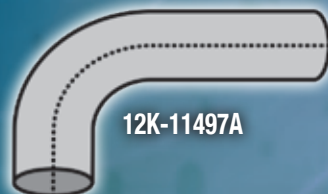
12K-6326A
12K-6326CP



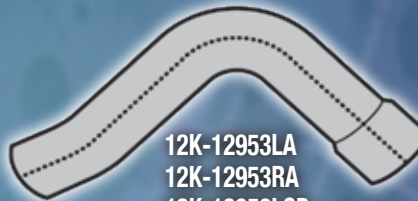
12K-8047A
12K-8047CP



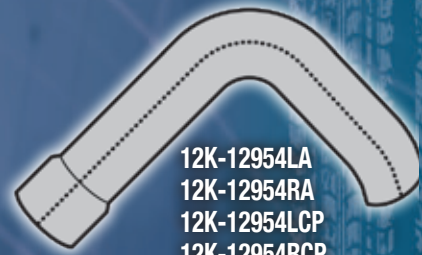
12K-8049A
12K-8049CP



12K-11497A



12K-12953LA
12K-12953RA
12K-12953LCP
12K-12953RCP



12K-12954LA
12K-12954RA
12K-12954LCP
12K-12954RCP

ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12K-107LA	12K-107LCP	5"	ID/OD	K180-10742	5" Exhaust Elbow - Left W900A Conv. (Elbow under the Frame)
12K-107RA	12K-107RCP	5"	ID/OD	K180-10742R	5" Exhaust Elbow - Right W900A Conv. (Elbow under the Frame)
12K-5419A	12K-5419CP	5"	ID/OD	K180-5419	Exhaust Elbow 25°
12K-6326A	12K-6326CP	5"	OD/OD	K180-6326	Intermediate Pipe W900B, T600, T800
12K-8047A	12K-8047CP	5"	ID/OD	K180-8047	Exhaust Elbow 90°
12K-8049A	12K-8049CP	5"	OD/OD	K180-8049	Exhaust Elbow 47° W900B, T600, T800
12K-11497A	--	5"	OD/OD	K180-11497	Exhaust Elbow 90°
12K-12953LA	12K-12953LCP	5"	ID/OD	K180-12953	Dbl. Bend 90° / 23° Elbow - Left - 76-81 W900A Conv. with 60" Sleeper
12K-12953RA	12K-12953RCP	5"	ID/OD	K180-12953R	Dbl. Bend 90° / 23° Elbow - Right - 76-81 W900A Conv. with 60" Sleeper
12K-12954LA	12K-12954LCP	5"	ID/OD	K180-12954	Dbl. Bend 90° / 28° Elbow - Left - 76-81 W900 Conv. with CAT 3406 / Cummins NTC / NTA / VT903
12K-12954RA	12K-12954RCP	5"	ID/OD	K180-12954R	Dbl. Bend 90° / 28° Elbow - Left - 76-81 W900 Conv. with CAT 3406 / Cummins NTC / NTA / VT903

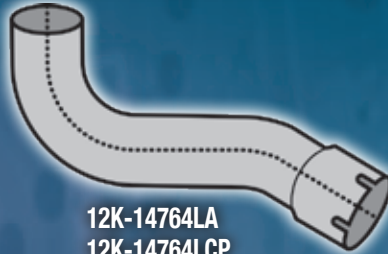
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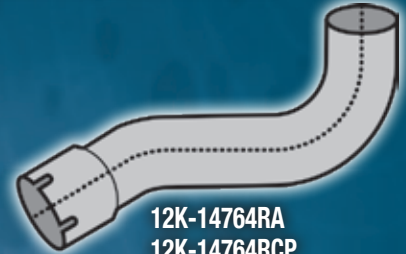
OEM REPLACEMENT PARTS · KENWORTH



12K-14122A
12K-14122CP



12K-14764LA
12K-14764LCP



12K-14764RA
12K-14764RCP



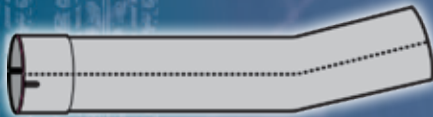
12K-15565A



12K-17876A



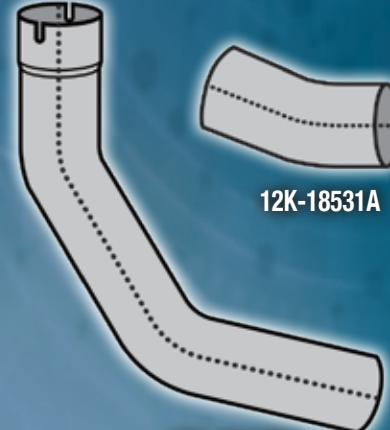
12K-18531A



12K-18614A



12K-18615LA
12K-18615LCP



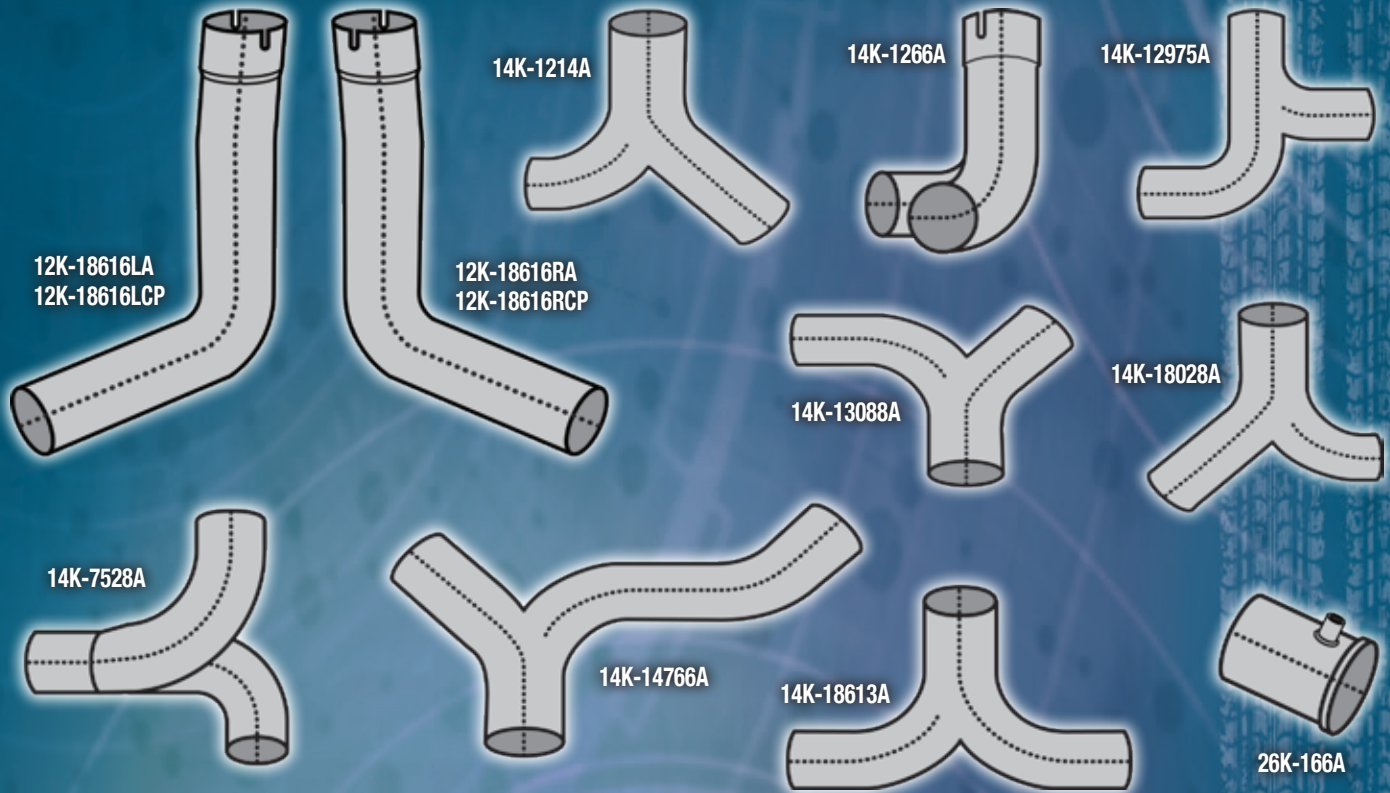
12K-18615RA
12K-18615RCP

ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12K-14122A	12K-14122CP	5"	OD/OD	K180-14122	Dbl. Bend 27° Intermediate Pipe T800 Model
12K-14764LA	12K-14764LCP	5"	ID/OD	K180-14764	Dbl. Bend Elbow 90° - 45° - Left W900B Conv. & W900L
12K-14764RA	12K-14764RCP	5"	ID/OD	K180-14764R	Dbl. Bend Elbow 90° - 45° - Right W900B Conv. & W900L
12K-15565A	--	5"	OD	K180-15565	22° Turbo Pipe with Pyro Fitting W900B/L, T600, T800
12K-17876A	--	5"	ID/OD	K180-17876	60° Exhaust Elbow T600 AeroCab, T600B, T800
12K-18531A	--	5"	OD/OD	K180-18531	26° Exhaust Elbow W900B/L, T600, T800
12K-18614A	--	5"	ID/OD	K180-18614	Intermediate Pipe W900B/L, T600, T800
12K-18615LA	12K-18615LCP	5"	ID/OD	K180-18615	Dbl. Bend Elbow - Left W900L Aero Cab Conv. 2002 & Before with 40" Steps (Elbow under the Frame)
12K-18615RA	12K-18615RCP	5"	ID/OD	K180-18615R	Dbl. Bend Elbow - Right W900L Aero Cab Conv. 2002 & Before with 40" Steps (Elbow under the Frame)

HEAVY DUTY

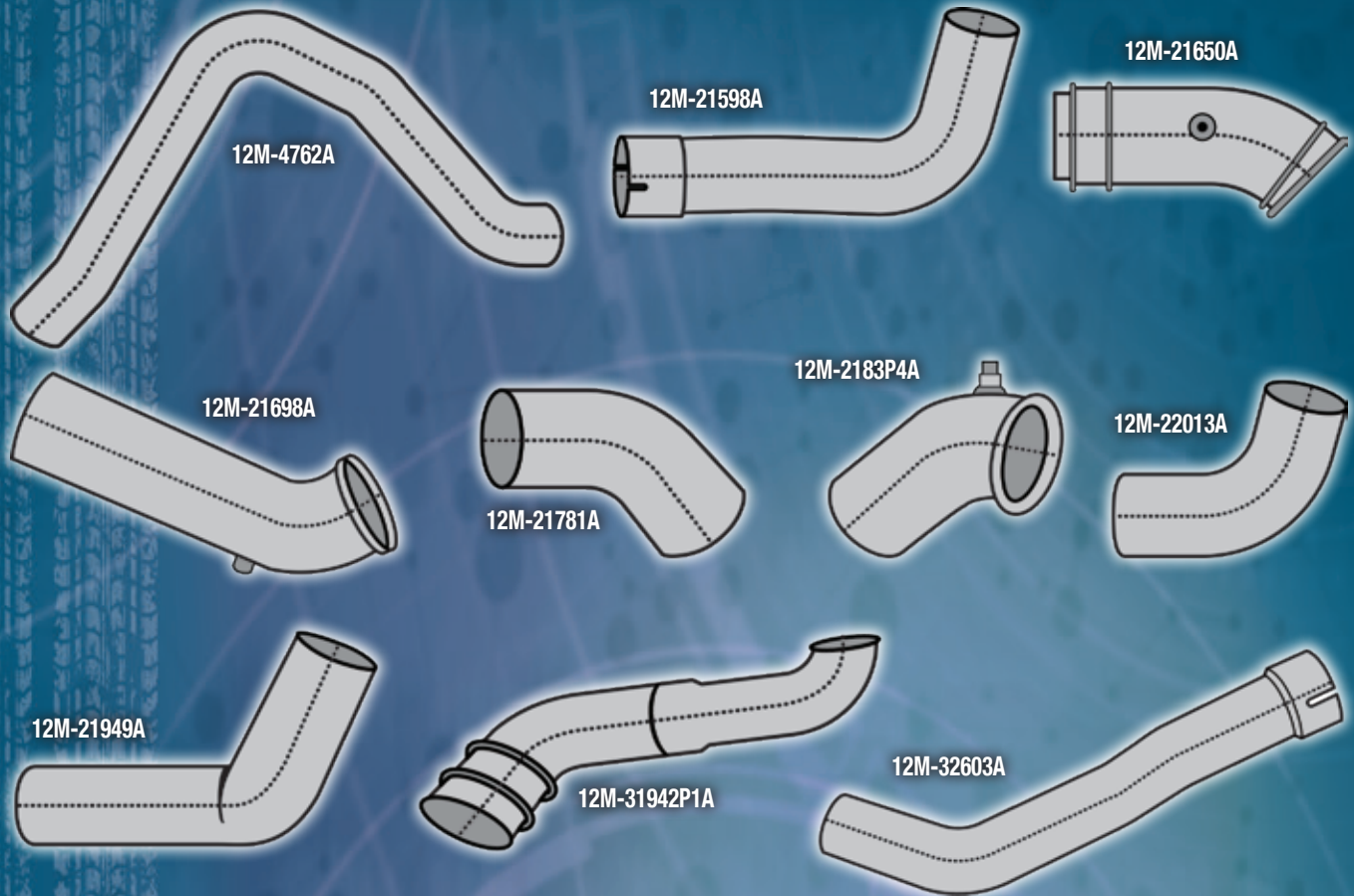
MANUFACTURING, INC.

OEM REPLACEMENT PARTS • KENWORTH



ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12K-18616LA	12K-18616LCP	5"	ID/OD	K180-18616	Dbl. Bend Elbow - Left W900L Aero Cab Conv. 2002 & Before with 45" Steps (Elbow under the Frame)
12K-18616RA	12K-18616RCP	5"	ID/OD	K180-18616R	Dbl. Bend Elbow - Right W900L Aero Cab Conv. 2002 & Before with 45" Steps (Elbow under the Frame)
14K-1214A	--	5"	ID/OD/OD	M66-1214	Y-Divider T800
14K-1266A	--	5"	ID/OD/OD	M66-1266	Y-Divider T800 (Dual mufflers under truck)
14K-12975A	--	5"	ID/OD/OD	K180-12975	Y-Divider W900A (Cummins)
14K-13088A	--	5"	OD/OD/OD	K180-13088	Y-Divider W900A 1982 & Older (CAT)
14K-14766A	--	5"	OD/OD/OD	K180-14766	Y-Divider W900B/L, T600, T800
14K-7528A	--	5"	OD/OD/OD	K180-7528	Y-Divider 1986- COE Model
14K-18028A	--	5"	OD/OD/OD	K180-18028	Y-Divider W900B/L, T600, T800
14K-18613A	--	5"	OD/OD/OD	K180-18613	Y-Divider T800 (Dual mufflers under truck)
26K-166A	--	5"	OD	K130-166	Turbo Pipe with Pyro Fitting

OEM REPLACEMENT PARTS • MACK

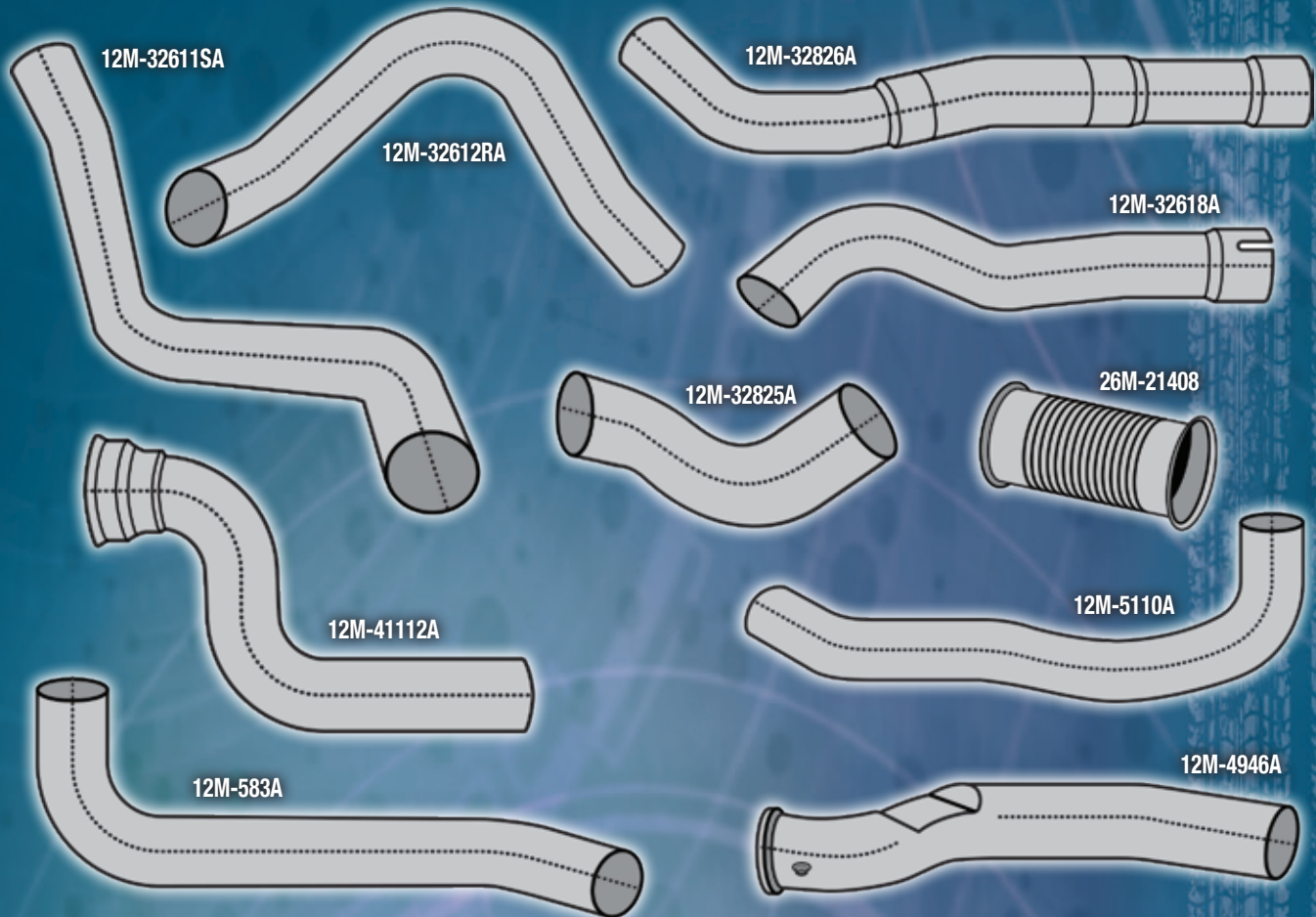


ALUMINIZED PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12M-4762A	4"	OD/OD	4ME-4762	Exhaust Pipe 'R' Model
12M-21598A	4"	ID/OD	4ME-21598	Exhaust Pipe 'DM' Model
12M-21650A	4"	OD	4ME-21650	Turbo Pipe
12M-21698A	4"	OD	4ME-21698	Turbo Pipe 'DM' Model
12M-21781A	4"	OD/OD	4ME-21781	Exhaust Pipe 'MR' Model
12M-21783P4A	4"	OD	4ME-21783P4	45° Turbo Pipe with Pyro Fitting 'MR' Model
12M-22013A	4"	OD/OD	4ME-22013	74° Exhaust Elbow MR & LE Models
12M-21949A	4"	OD/OD	4ME-21949	Exhaust Pipe 'DM' Model
12M-31942P1A	4"	OD	4ME-31942P1	Turbo Pipe with Pyro Fitting 'DM' Model
12M-32603A	4"	ID/OD	4ME-32603	Intermediate Pipe 'R' Model

HEAVY DUTY

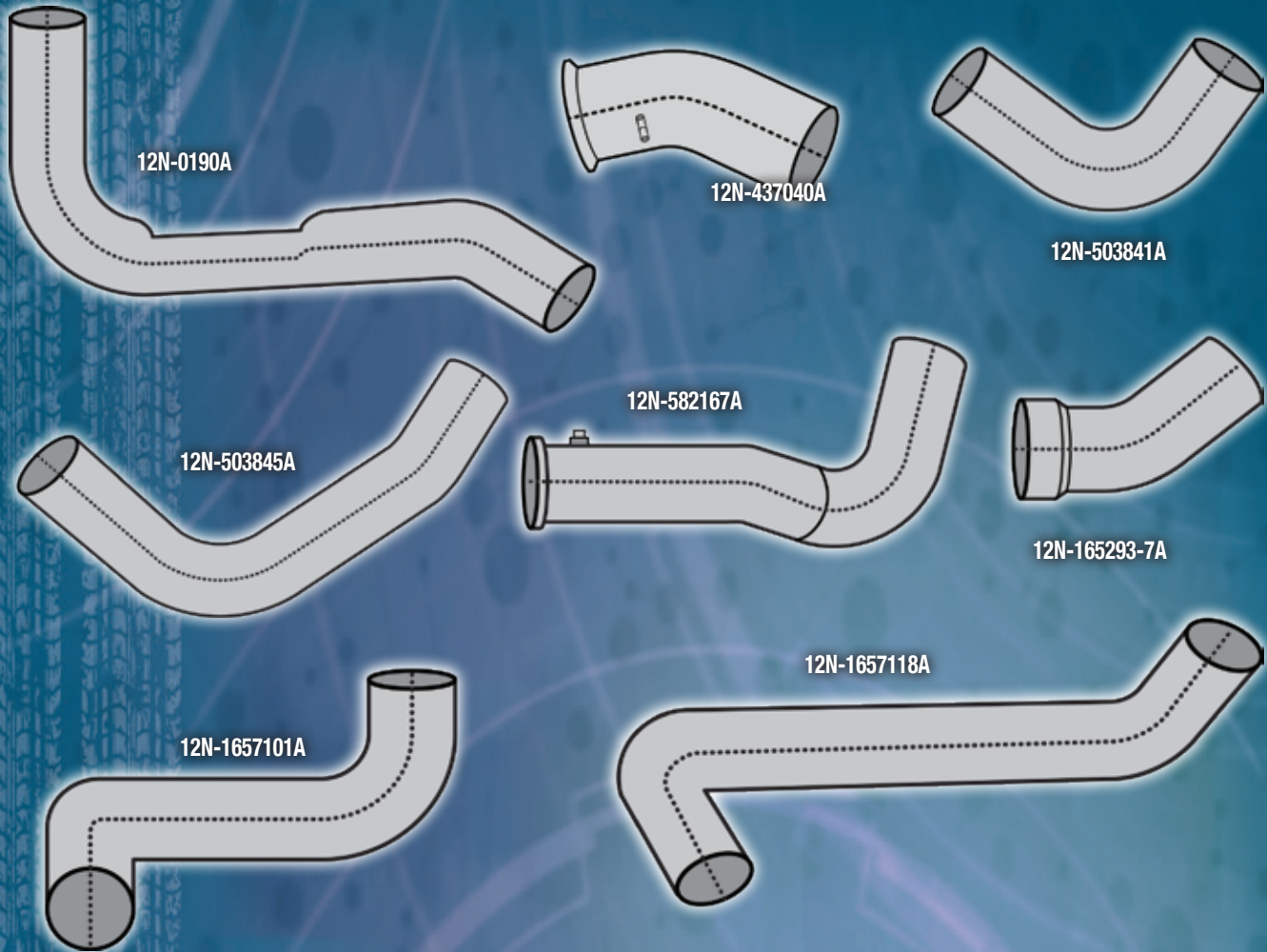
MANUFACTURING, INC.

OEM REPLACEMENT PARTS · MACK



ALUMINIZED PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12M-32611SA	4"	OD/OD	4ME-32611	Exhaust Pipe 'R' Model (Square Fuel Tank)
12M-32612RA	4"	OD/OD	4ME-32612	Exhaust Pipe 'R' Model (Round Fuel Tank)
12M-32618A	4"	ID/OD	4ME-32618	Exhaust Pipe 'DM' Model
12M-32825A	4"	OD/OD	4ME-32825	Rear Pipe 'DM' Model
12M-32826A	4"	ID/OD	4ME-32826	Intermediate Pipe 'DM' Model
12M-41112A	4"	OD/OD	4ME-41112M2	Dbl. Bend Flared Exhaust Pipe - Granite Model
12M-4946A	5"	OD	4ME-4946	Turbo Pipe
12M-5110A	4"	OD/OD	4ME-5110	Multi-Bend Exhaust Pipe
12M-583A	5"	OD/OD	4ME-583M2	Dbl. Bend Elbow CH & CL DayCab
26M-21408	4"	OD	4ME-21408	Turbo Exhaust Flex Pipe

OEM REPLACEMENT PARTS • NAVISTAR



ALUMINIZED PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12N-0190A	5"	OD/OD	2040190C2	90° Exhaust Elbow - Multiple Bend
12N-437040A	5"	OD	437040C1	35° Turbo Pipe
12N-503841A	5"	OD/OD	503841C1	Exhaust Elbow Pipe with 63" Cab
12N-503845A	5"	OD/OD	503845C1	Inlet Pipe - 9670 COE
12N-582167A	5"	OD	582167C1	Turbo Pipe 9670 COE with Cummins
12N-165293-7A	5"	OD	1652937C1	Turbo Pipe
12N-1657101A	5"	OD/OD	1657101C1	Inlet Pipe - 9700 COE
12N-1657118A	5"	OD/OD	1657118C1	Inlet Pipe - 9700 COE

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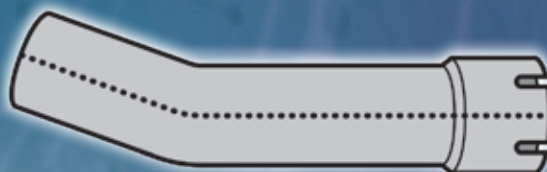
OEM REPLACEMENT PARTS · PACCAR



12PP-500A



12PP-500-20A



12PP-501-20A



12PP-519A



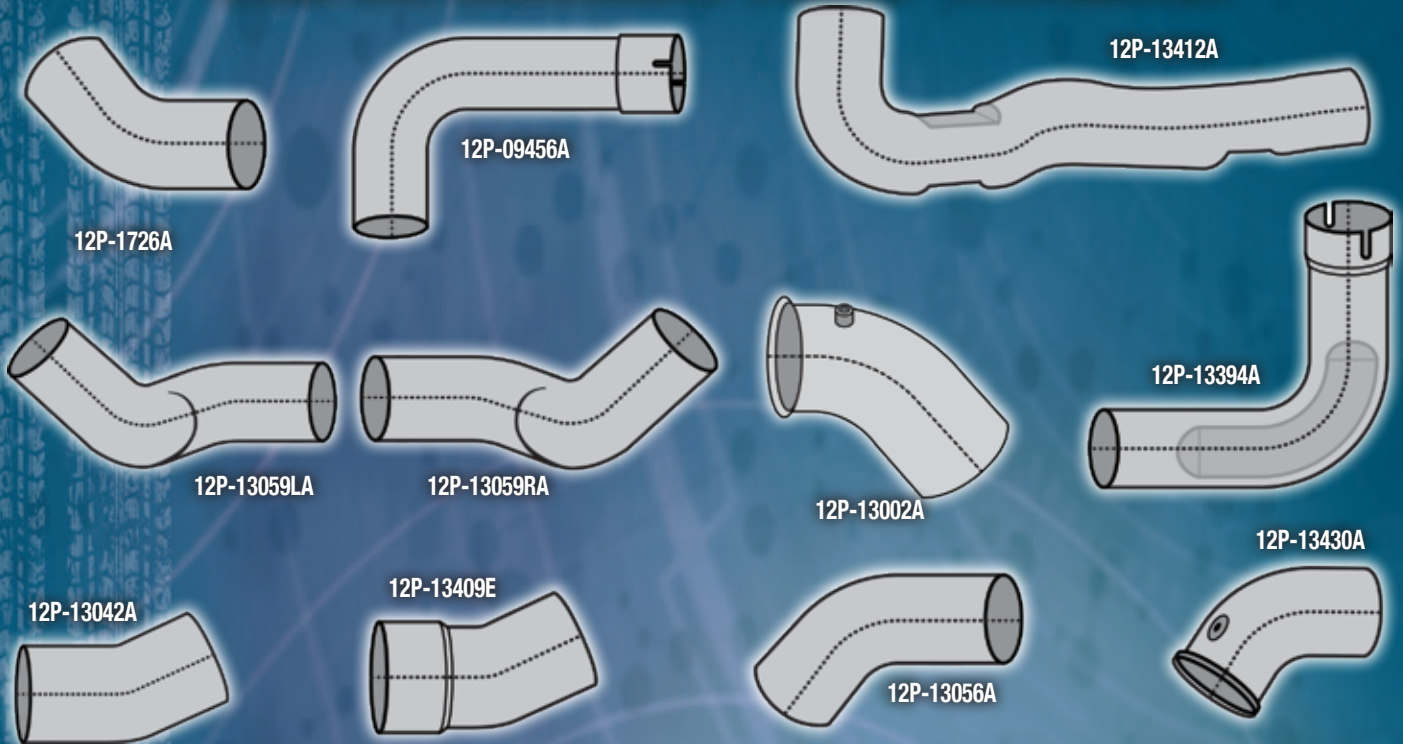
12PP-520A

ALUMINIZED PART NUMBER	DIAMETER	STYLE	DESCRIPTION
12PP-500A	5"	ID/ID	5" X 6" Straight Connector
12PP-500-20A	5"	OD	Turbo Pipe with Pyro
12PP-501-20A	5"	ID/OD	Intermediate Pipe
12PP-519A	5"	ID/OD	5" x 19.25" 90° Elbow
12PP-520A	5"	OD/OD	5" x 20" 90° Elbow - Short Radius

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OEM REPLACEMENT PARTS • PETERBILT



ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12P-1726A	12P-1726CP	5"	OD/OD	14-01726	67° Elbow - 379 Conv.
--	12P-1726-605CP	6"-5"	OD/OD	14-01726	67° Elbow - 379 Conv.
12P-09456A	12P-09456CP	5"	ID/OD	14-09456	90° Elbow - 399 Conv.
12P-13056A	12P-13056CP	5"	OD/OD	14-13056	56° Elbow 379 Conv. (2002 & Before) 379X Conv. (2002 - 2006 only)
12P-13059LA	12P-13059LCP	5"	OD/OD	14-13059	Exhaust Elbow - Left 377 Conv. (Dual Exhaust)
12P-13059RA	12P-13059RCP	5"	OD/OD	14-13059R	Exhaust Elbow - Right 377 Conv. (Dual Exhaust)
12P-13002A	--	5"	OD	14-13002	85° Turbo Pipe 379 Conv.
12P-13042A	--	5"	OD/OD	14-13042	Exhaust Elbow
12P-13394A	--	5"	ID/OD	14-13394	90° Elbow 379 Conv.
12P-13409A	--	5"	ID/OD	14-13409	45° Elbow 357, 378, 379 Conv.
12P-13412A	--	5"	OD/OD	14-13412	Exhaust Elbow 357-378-379 Conv. (Single Exhaust)
12P-13430A	--	5"	OD	14-13430	72° Turbo Pipe 379 Conv.

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OEM REPLACEMENT PARTS · PETERBILT

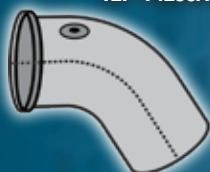
12P-13822A



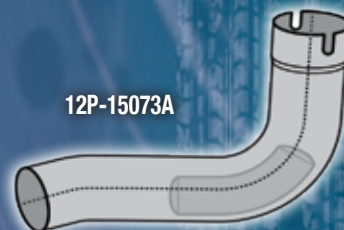
12P-13825A



12P-14256A



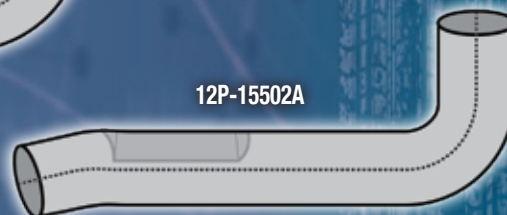
12P-15073A



12P-15501A



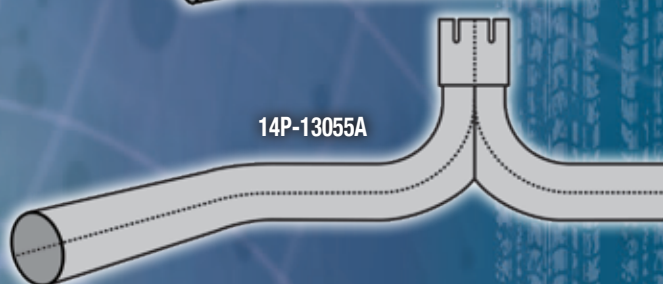
12P-15502A



14P-04055A

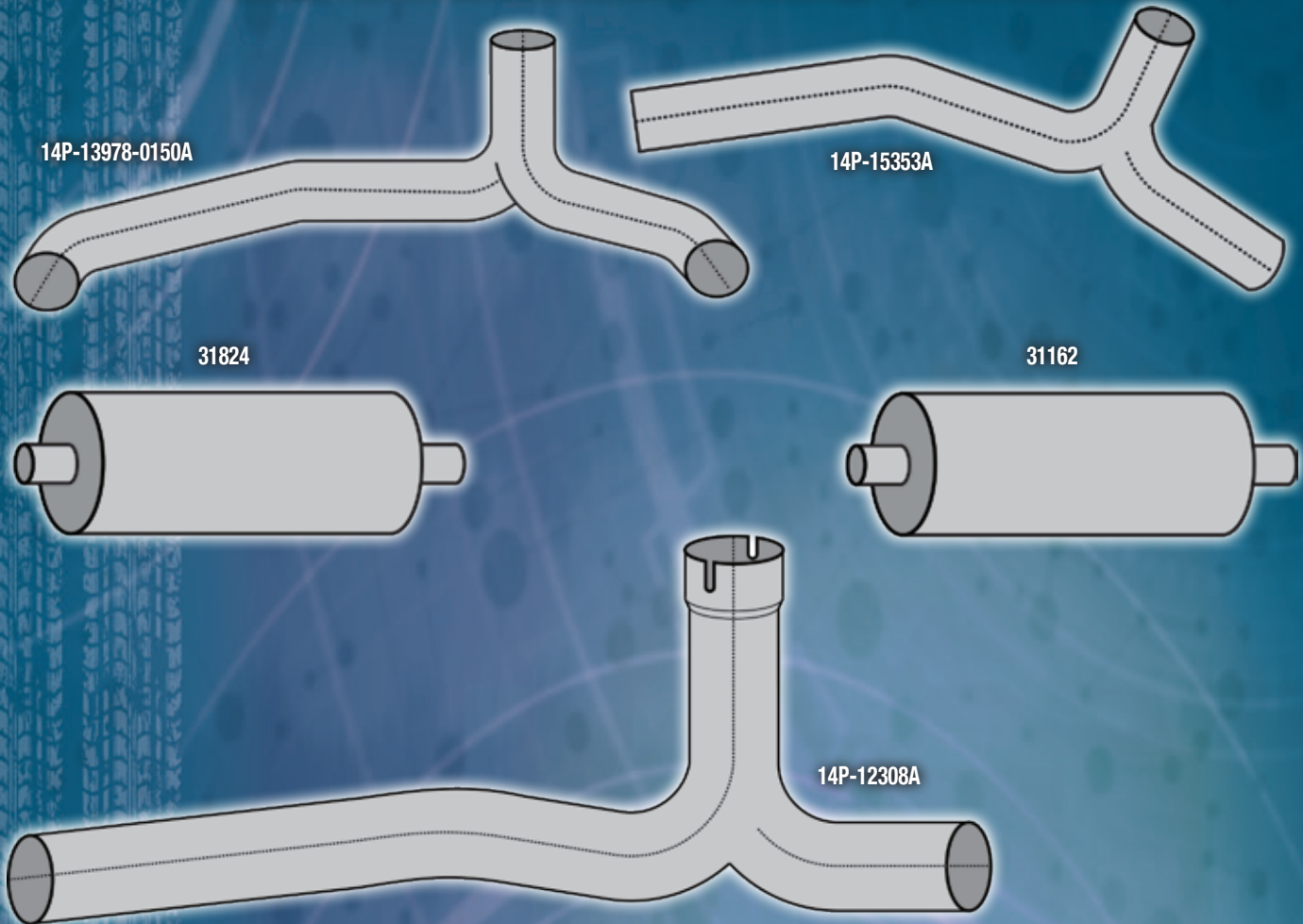


14P-13055A



ALUMINIZED PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12P-13822A	5"	OD	14-13822	Turbo Pipe 379 Conv.
12P-13825A	5"	OD	14-13825	Turbo Pipe 357, 378, 379 Conv.
12P-14256A	5"	OD	14-14256	68° Turbo Pipe with Pryo Fitting 377-378-379 Conv.
12P-15073A	5"	ID/OD	14-15073	90° Elbow 379 Conv.
12P-15501A	5"	ID/OD	14-15501	Exhaust Elbow 357-378-379 Conv. (Single Exhaust)
12P-15502A	5"	OD/OD	14-15502	Exhaust Pipe - 378 Conv.
14P-13055A	5"	ID/OD	14-13055	Y-Pipe - 379 Conv.
14P-04055A	5"	ID/OD	14-14055	Y-Pipe - 359 Conv.

OEM REPLACEMENT PARTS • PETERBILT

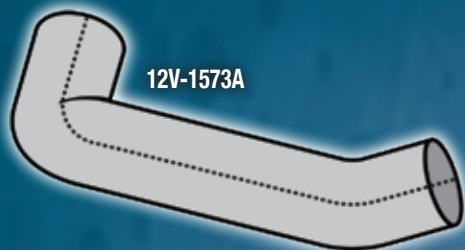


ALUMINIZED PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
14P-13978-0150A	5"	OD/OD/OD	14-13978-0150	Y-Pipe - 379 DayCab Conv. Mufflers behind the Cab
14P-15353A	5"	OD/OD/OD	14-15353-0150	Y-Pipe - 379 Conv.
31162	5"	ID/ID	M11026	55" Resonator
31824	5"	ID/ID	M110824	55" Muffler
14P-12308A	5"	ID/OD/OD	14-12308	Peterbilt 359 Conv. With Extended Hood

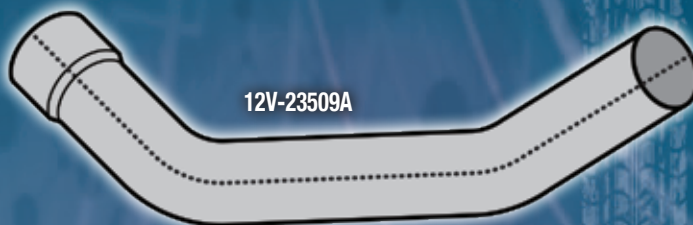
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MANUFACTURING, INC.

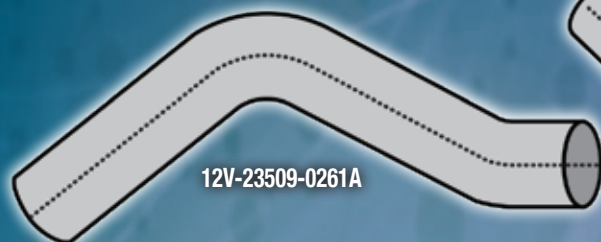
OEM REPLACEMENT PARTS · VOLVO



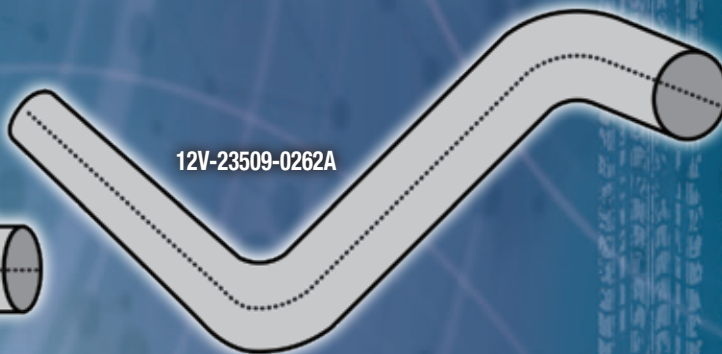
12V-1573A



12V-23509A



12V-23509-0261A



12V-23509-0262A



12V-57104A



12V-89180A

ALUMINIZED PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
12V-1573A	5"	OD/OD	21131573	DbL. Bend Exhaust Pipe VN - VNL with Single Exhaust
12V-23509A	5"	ID/OD	23509-0258	Right Inlet Pipe - Aluminized
12V-23509-0261A	5"	OD/OD	23509-0261	Left Side Muffler Pipe - Aluminized
12V-23509-0262A	5"	OD/OD	23509-0262	Right Side Muffler Pipe - Aluminized
12V-57104A	5"	OD/OD	20457104	Exhaust Pipe - Aluminized
12V-89180A	5"	ID/OD	20489180	Elbow - Aluminized

HEAVY DUTY

MANUFACTURING, INC.

OEM REPLACEMENT PARTS · WESTERN STAR



12WS-3440CP



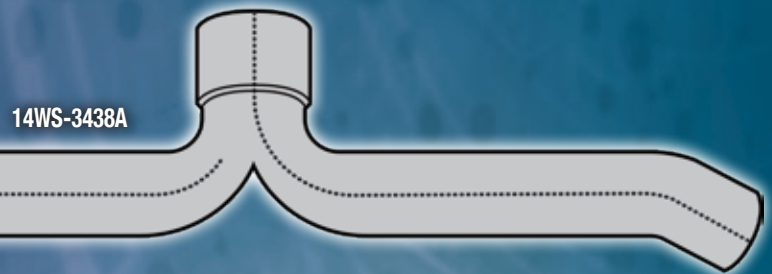
12WS-3478A



12WS-3540CP



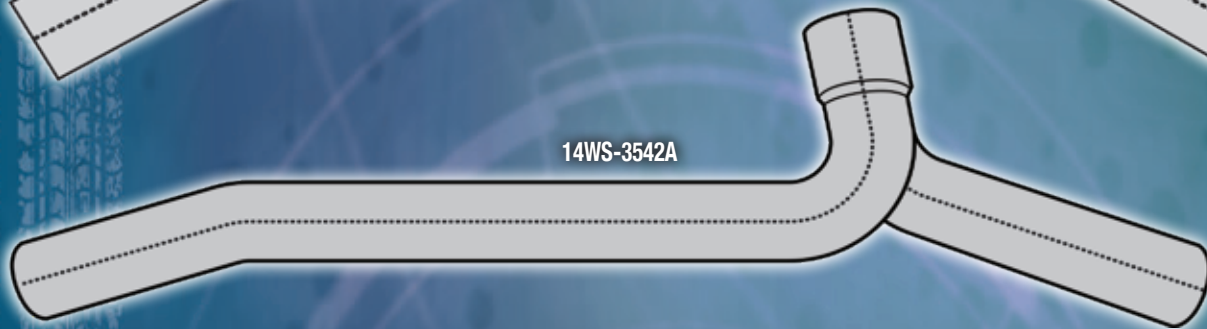
12WS-3479A



14WS-3438A



14WS-3444A



14WS-3542A

ALUMINIZED PART NUMBER	CHROME PART NUMBER	DIAMETER	STYLE	OEM PART NUMBER	DESCRIPTION
--	12WS-3440CP	5"	ID/OD	23527-3440	Exhaust Elbow - Heritage Model
12WS-3478A	--	5"	OD	23529-3478	Turbo Pipe with Pyro Fitting Constellation Model
12WS-3479A	--	5"	ID/OD	23530-3479	Intermediate Pipe
--	12WS-3540CP	5"	ID/OD	23529-3540	Exhaust Elbow - Constellation Model
14WS-3438A	--	5"	ID/OD	23527-3438	Y-Divider - Heritage Model
14WS-3444A	--	5"	OD/OD//OD	23527-3444	Y-Divider - Heritage Model with Air Ride Cab
14WS-3542A	--	5"	ID/OD	23527-3542	Y-Divider - Constellation Model

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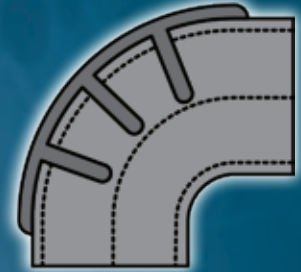
MANUFACTURING, INC.

AIR INLET AND SILICONE HEATER HOSE SECTION

90° ELBOWS - RUBBER

AIR INLET SYSTEM

PART NUMBER	ID	DESCRIPTION
32-390	3"	90° Elbow
32-3590	3.5"	90° Elbow
32-490	4"	90° Elbow
32-4590	4.5"	90° Elbow
32-590	5"	90° Elbow
32-5590	5.5"	90° Elbow - Fully Ribbed
32-690	6"	90° Elbow - Fully Ribbed
32-790	7"	90° Elbow - Fully Ribbed
32-890	8"	90° Elbow - Fully Ribbed



90° ELBOWS - RUBBER

AIR INLET SYSTEM - Short Radius

PART NUMBER	ID	DESCRIPTION
32A-5590	5.5"	90° Elbow - Short Radius
32A-690	6"	90° Elbow - Short Radius



45° ELBOWS - RUBBER

AIR INLET SYSTEM

PART NUMBER	ID	DESCRIPTION
33-345	3"	45° Elbow
33-3545	3.5"	45° Elbow
33-445	4"	45° Elbow
33-545	5"	45° Elbow
33-5545	5.5"	45° Elbow
33-645	6"	45° Elbow
33-745	7"	45° Elbow
33-845	8"	45° Elbow

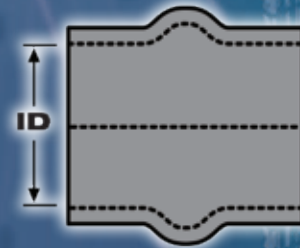


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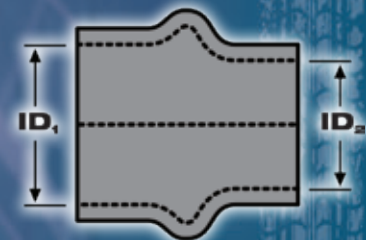
HUMP HOSE AIR INLET SYSTEM

PART NUMBER	ID	LENGTH
34-3	3.00"	5.25"
34-35	3.50"	5.25"
34-4	4.00"	5.25"
34-5	5.00"	6"
34-55	5.50"	6"
34-6	6.00"	7"
34-7	7.00"	7"
34-8	8.00"	8"



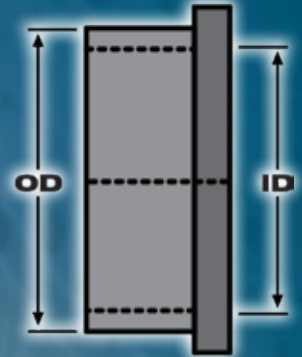
HUMP HOSE - REDUCERS AIR INLET SYSTEM

PART NUMBER	1 ID 2	LENGTH
35-353	3.5" - 3.0"	5.25"
35-43	4.0" - 3.0"	5.25"
35-54	5.0" - 4.0"	5.50"
35-554	5.5" - 4.0"	6.00"
35-555	5.5" - 5.0"	6.00"
35-65	6.0" - 5.0"	6.00"
35-655	6.0" - 5.5"	6.00"
35-755	7.0" - 5.5"	6.00"
35-76	7.0" - 6.0"	6.00"
35-855	8.0" - 5.5"	6.00"
35-86	8.0" - 6.0"	6.00"
35-87	8.0" - 7.0"	6.00"



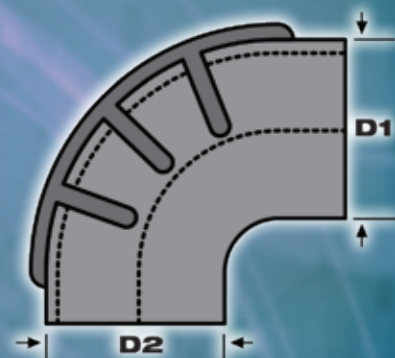
INSERT SLEEVE REDUCERS FOR RUBBER ELBOWS AND HUMP HOSES

PART NUMBER	ID	OD
37-454	4.50"	4.00"
37-54	5.00"	4.00"
37-545	5.00"	4.50"
37-554	5.50"	4.00"
37-555	5.50"	5.00"
37-65	6.00"	5.00"
37-665	6.00"	5.50"
37-76	7.00"	6.00"



SPECIAL REDUCING 90° ELBOWS AIR INLET SYSTEM

PART NUMBER	D1	D2
38-555	5.50"	5.00"
38-65	6.00"	5.00"
38-655	6.00"	5.50"
38-755	7.00"	5.50"
38-7590	7.00"	5.00"
38-76	7.00"	6.00"



HEAVY DUTY

MANUFACTURING, INC.

AIR INLET CLAMP - STAINLESS STEEL T-BOLT TYPE

ALLOWS FLEXIBLE ASSEMBLY OF RUBBER ELBOWS AND ALUMINUM TUBING



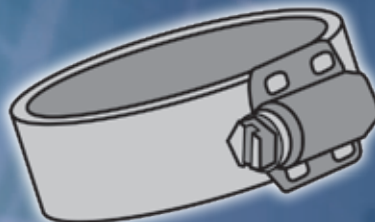
PART NUMBER	DIAMETER
36-2	2.00"
36-225	2.25"
36-25	2.50"
36-275	2.75"
36-3	3.00"
36-35	3.50"
36-4	4.00"

PART NUMBER	DIAMETER
36-45	4.50"
36-5	5.00"
36-55	5.50"
36-6	6.00"
36-7	7.00"
36-8	8.00"
36-10	10.00"

CLAMPS FOR SILICONE HOSE

LINE HOSE CLAMPS

PART NUMBER	MINIMUM TO MAXIMUM SIZE	
36A-206	7/16"	25/32"
36A-208	1/2"	29/32"
36A-210	9/16"	1-1/16"
36A-212	11/16"	1-1/4"
36A-216	13/16"	1-1/2"
36A-220	13/16"	1-3/4"
36A-224	1-1/16"	2"
36A-228	1-5/16"	2-1/4"
36A-232	1-9/16"	2-1/2"
36A-236	1-13/16"	2-3/4"
36A-240	2-1/16"	3"
36A-244	2-5/16"	3-1/4"
36A-248	2-9/16"	3-1/2"
36A-252	2-13/16"	3-3/4"
36A-260	3-5/16"	4-1/4"



Stainless steel band and housing with 5/16" HEX screw.

Recommended application up to 40 lbs-in torque.

Lined hose clamps seal silicone and other soft hoses without damage. The inner liner extends under the perforations to protect the hose and prevents extrusion through the worm-gear perforations

CONSTANT TORQUE CLAMPS



PART NUMBER	MINIMUM TO MAXIMUM SIZE	
36B-300	2-1/4"	3-1/8"
36B-350	2-3/4"	3-5/8"
36B-400	3-1/4"	4-1/8"
36B-450	3-3/4"	4-5/8"
36B-500	4-1/4"	5-1/8"

Stainless steel band and housing with 5/16" HEX screw.

Recommended application up to 90 lbs-in torque.

Typical applications are sealed systems where clamps cannot be retightened, systems where clamps are difficult to get to, extremes of heat or cold, or system expansion or contraction.

These clamps are specifically recommended for bus, truck, and heavy duty equipment, air intake and coolant connections.

HIGH TORQUE CLAMPS



PART NUMBER	MINIMUM TO MAXIMUM SIZE	
36C-500	4-1/4"	5-1/8"
36C-600	5-1/4"	6-1/8"
36C-700	6-1/4"	7-1/8"
36C-800	7-1/4"	8-1/8"
36C-900	8-1/4"	9-1/8"

Stainless steel band and housing with 5/16" HEX screw.

Recommended application up to 150 lbs-in torque.

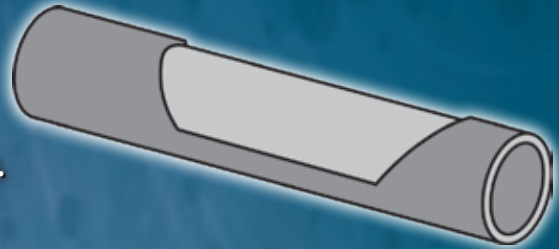
High torque clamps are super heavy-duty and are recommended for diameters over 2". This clamp ensures total protection against leakage and eliminates the need for double clamping.

1-PLY SILICONE HEATER HOSE

Extruded heater hoses meet or exceed the requirements of the SAE J20 R3 class a specification. The silicone hoses are reinforced with polyester fabric. An aramid fiber reinforcement is available for high temperature applications up to 500+ F degrees. Heater hoses are resistant to coolant solutions, cold leaks, cracking, peeling, aging and ozone.

APPLICATIONS

Standard equipment on trucks, cars and buses.
Not recommended for fuel or oil transfer.



TEMPERATURE - LOW / HIGH	-65F TO +350F
ABRASION - INTERIOR / EXTERIOR	GOOD / GOOD
FLEXIBILITY	EXCELLENT
PRESSURE	POSITIVE
CHEMICAL	GOOD
STANDARD LENGTH	25' TO 50' (HEATER)
SIZE - ID	.250" TO 1.25" ID

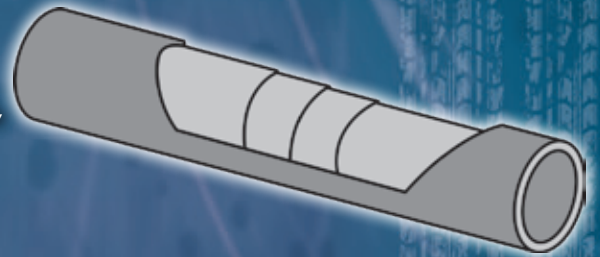
PART NUMBER	DIAMETER		LENGTH FEET	MINIMUM BURST PRESSURE (PSI)	MINIMUM OPERATING PRESSURE (PSI)
	ID	OD			
42-250-25	0.250	0.56	25	250	60
42-250-50	0.250	0.56	50	250	60
42-313-25	0.313	0.63	25	250	60
42-313-50	0.313	0.63	50	250	60
42-375-25	0.375	0.69	25	250	60
42-375-50	0.375	0.69	50	250	60
42-500-25	0.500	0.81	25	250	60
42-500-50	0.500	0.81	50	250	60
42-625-25	0.625	0.93	25	250	60
42-625-50	0.625	0.93	50	250	60
42-750-25	0.750	1.06	25	200	50
42-750-50	0.750	1.06	50	200	50
42-875-25	0.875	1.24	25	175	40
42-875-50	0.875	1.24	50	175	40
42-100-25	1.00	1.36	25	175	40
42-100-50	1.00	1.36	50	175	40
42-125-25	1.25	1.58	25	175	40
42-125-50	1.25	1.58	50	175	40

3-PLY SILICONE HEATER HOSE

Special coated silicone elastomer with woven polyester fabric vulcanized and post cured for maximum ply adhesion and service life. Meets SAE J20-R1 class 'A' standard wall.

APPLICATIONS

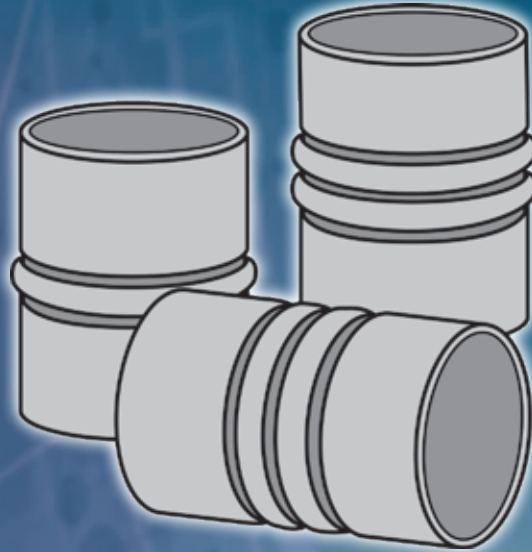
Low pressure coolant and heat connection in hostile engine environments. Resists aging, ozone, chemicals, lubricants, hardening and cracking. Ideal for extreme temperature and various pressure ranges where high performance levels are required.



TEMPERATURE - LOW / HIGH	-65F TO +350F
ABRASION - INTERIOR / EXTERIOR	GOOD / GOOD
FLEXIBILITY	EXCELLENT
PRESSURE	POSITIVE
CHEMICAL	GOOD
STANDARD LENGTH	3' (COOLANT)
SIZE - ID	.50" to 6" ID (COOLANT)

PART NUMBER	DIAMETER		MINIMUM BURST PRESSURE (PSI)	MINIMUM OPERATING PRESSURE (PSI)
	ID	OD		
43-500-3	0.500	0.87	425	115
43-625-3	0.625	1.00	375	90
43-750-3	0.750	1.12	325	80
43-875-3	0.875	1.25	325	80
43-1000-3	1.000	1.37	300	75
43-1125-3	1.125	1.50	300	75
43-1250-3	1.250	1.62	275	65
43-1375-3	1.375	1.75	275	65
43-1500-3	1.500	1.87	250	60
43-1750-3	1.750	2.12	225	55
43-2000-3	2.000	2.37	200	50
43-2250-3	2.250	2.62	175	40
43-2375-3	2.375	2.75	175	40
43-2500-3	2.500	2.87	150	35
43-2625-3	2.625	3.00	150	35
43-2750-3	2.750	3.12	125	30
43-3000-3	3.000	3.37	100	25
43-3500-3	3.500	3.87	75	15
43-4000-3	4.000	4.37	50	10
43-4500-3	4.500	4.87	50	10
43-5000-3	5.000	5.37	50	10

SILICONE CHARGE AIR COOLER HOSE - (CAC)



Hot side CAC hose, 4-ply aramid reinforced with high strength restricter rings

APPLICATIONS

For superior connection between engine mounted charge air system components. Ideal for handling slight misalignments and isolating vibration between hose ends. Low pressure coolant and heat connection in hostile engine environments. Resists aging, ozone, chemicals, lubricants, hardening and cracking. Ideal for extreme temperature and various pressure ranges where high performance levels are required.

PART NUMBER	DIAMETER		LENGTH
	ID	OD	
44-250	2.50	2.71	6.0"
44-300	3.00	3.21	6.0"
44-3035	3.00 / 3.50	3.21 / 3.71	6.0"
44-350	3.50	3.71	6.0"
44-3540	3.50 / 4.00	3.71 / 4.21	6.0"
44-400	4.00	4.21	6.0"

HEAVY DUTY

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EMISSION PRODUCTS SECTION

CUMMINS (DPF) REPLACEMENT CLAMPS & GASKETS

PART NUMBER	BODY SIZE	CLAMP / GASKET DESCRIPTION	ENGINE	CUMMINGS PART NUMBER
72-9500C	9.50	DPF CLAMP	ISB / ISB 6.7	2871861
72-1100C	11.00	DPF CLAMP	ISC / ISC 8.3 - ISL / ISL 9	2871862
72-1250C	12.50	DPF CLAMP	ISM / ISX 12 / ISX 15	2871863
72-1438C	14.38	DPF CLAMP	CUMMINS	2871864
72-SM40C	4.00	CLAMP - Spherical Marmon	CUMMINS	2880212
72-SM50C	5.00	CLAMP - Spherical Marmon	CUMMINS	2880213
73-9500C	9.50	DPF GASKET	ISB / ISB 6.7	2871451
73-1100C	11.00	DPF GASKET	ISC / ISC 8.3 - ISL / ISL 9	2871452
73-1250C	12.50	DPF GASKET	ISM / ISX 12 / ISX 15	2871453
73-SM40C	4.00	GASKET - Spherical Marmon	CUMMINS	2880214
73-SM50C	5.00	GASKET - Spherical Marmon	CUMMINS	2866337

CATEPILLAR (DPF) REPLACEMENT CLAMPS & GASKETS

PART NUMBER	BODY SIZE	CLAMP / GASKET DESCRIPTION	ENGINE	CUMMINGS PART NUMBER
72-1133CT	11.33	DPF CLAMP	C-7 / C-15 / C-15T	279-3260
72-1263CT	12.63	DPF CLAMP	C9	224-5572
72-1378CT	13.78	DPF CLAMP	C-7 / C-9 / C-13 / C-15 / C-15T	279-2124
72-1481CT	14.81	DPF CLAMP	C-9 / C-13 / C-15	278-5712
73-1133CT	11.33	DPF GASKET	C-7 / C-15 / C-15T	279-3259
73-1263CT	12.63	DPF GASKET	C9	247-1899
73-1378CT	13.78	DPF GASKET	C-7 / C-9 / C-13 / C-15 / C-15T	279-2123
73-1481CT	14.81	DPF GASKET	C-9 / C-13 / C-15	278-5711

DETROIT (DPF) REPLACEMENT CLAMPS & GASKETS

PART NUMBER	BODY SIZE	CLAMP / GASKET DESCRIPTION	ENGINE	DETROIT PART NUMBER
72-10125D	10.125	DPF CLAMP	DD 13 / DD 15	A6809950202
72-13000D	13.000	DPF CLAMP <i>(Double Bolt with Gasket)</i>	DD 13 / DD 15	A6809950302
72-13375D	13.375	DPF CLAMP	DD 60	A4709950002
73-10125D	10.125	DPF GASKET	DD 13 / DD 15	A6804910480
73-13375D	13.375	DPF GASKET	DD 60	A4709970045

NAVISTAR (DPF) REPLACEMENT CLAMPS & GASKETS

PART NUMBER	BODY SIZE	CLAMP / GASKET DESCRIPTION	ENGINE	CUMMINGS PART NUMBER
72-9000N	9.000	DPF CLAMP	NAVISTAR	2594128C1
73-9000N	9.000	DPF GASKET	NAVISTAR	2594129C1

VOLVO / MACK (DPF) REPLACEMENT CLAMPS & GASKETS

PART NUMBER	BODY SIZE	CLAMP / GASKET DESCRIPTION	ENGINE	CUMMINGS PART NUMBER
72-5000V	5.00	DPF CLAMP	VOLVO / MACK	21021850 11ME378M
72-1300V	13.00	DPF CLAMP	MACK-MP7 / VOLVO-D13F / D16F	21212520
72-1350V	13.50	DPF CLAMP	Mack with MP8 Cummins	21445458
73-5000V	5.00	DPF GASKET	VOLVO / MACK	21095726
73-1300V	13.00	DPF GASKET	MACK-MP7 / VOLVO-D13F / D16F	21021852
73-1350V	13.50	DPF GASKET	Mack with MP8 Cummins	21371339

- **Direct Replacement for OEM Applications**
- **Stainless Steel Construction**
- **Easy to Install**
- **Manufactured in USA**
- **Protects More Expensive Components in the Exhaust System**
- **All come with a one year unlimited mileage warranty**



FREIGHTLINER FLEXIBLE CONNECTORS

HDM PART NUMBER	OEM PART NUMBER	INLET	OUTLET	BELLOW LENGTH	OVERALL LENGTH	DESCRIPTION
70F-27334-018	A04-27334-018	5	5	12.91	18.23	Freightliner - OEM Flexible Connector
70F-28522-000	A04-28522-000	5	5	10.83	15.47	Freightliner - OEM Flexible Connector
70F-28578-000	04-28578-000	4	4	11.73	15.75	Freightliner - OEM Flexible Connector

KENWORTH · PETERBILT FLEXIBLE CONNECTORS

HDM PART NUMBER	OEM PART NUMBER	INLET	OUTLET	BELLOW LENGTH	OVERALL LENGTH	DESCRIPTION
70K-3541	M66-3541 M66-4111	4	4	12.91	18.23	Kenworth - OEM Flexible Connector
70K-6541-0320	M66-7091-0320	4	4	10.83	15.47	Kenworth - OEM Flexible Connector
70K-6541-0335	M66-7091-0335	4	4	10.83	15.47	Kenworth - OEM Flexible Connector
70K-6541-0405	M66-7091-0405	4	4	10.83	15.47	Kenworth - OEM Flexible Connector
70K-6542-0320	M66-6542-0320	5	5	12.91	18.23	Kenworth - OEM Flexible Connector
70K-6542-0335	M66-6542-0335	5	5	12.91	18.23	Kenworth - OEM Flexible Connector
70K-6559	M66-6559	2.5	2.5	10.00	13.75	Kenworth - OEM Flexible Connector

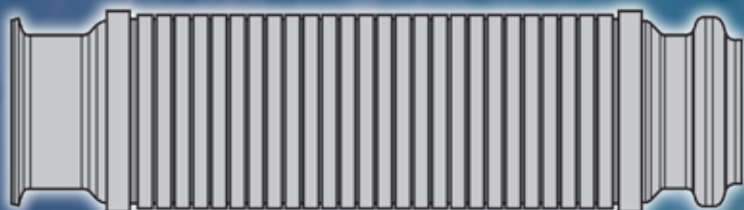
NAVISTAR · PROSTAR FLEXIBLE CONNECTORS

HDM PART NUMBER	OEM PART NUMBER	INLET	OUTLET	BELLOW LENGTH	OVERALL LENGTH	DESCRIPTION
70N-8113C5	3628113C5	5	5	12.91	18.23	Kenworth - OEM Flexible Connector
70N-0024C3	3820024C3	5	5	12.91	18.23	Kenworth - OEM Flexible Connector
70N-6294C2	3826294C2	5	5	12.91	18.23	Kenworth - OEM Flexible Connector

VOLVO · MACK FLEXIBLE CONNECTORS

HDM PART NUMBER	OEM PART NUMBER	INLET	OUTLET	FLEX LENGTH	OVERALL LENGTH	DESCRIPTION
70V-8532	21428532	5	5	12.65	15.90	Volvo - Mack - OEM Flexible Connector
	21959389					
	22307697					
70V-8534	21428534	5	5	13.50	17.70	Volvo - Mack - OEM Flexible Connector
	21959393					
	22307701					
70V-8536	21428536	4	4	13.50	17.70	Volvo - Mack - OEM Flexible Connector
	21959395					
	22307703					

- Direct Replacement for OEM Applications
- Designed and Engineered to OEM Standards
- All Parts Meet Emissions EPA-07/10/13 Requirements
- Stainless Steel Construction
- Easy to Install
- Manufactured in USA
- Protects More Expensive Components in the Exhaust System
- All kits are installation ready
- All come with a one year unlimited mileage warranty



*Each Heavy Duty Mfg. Bellows Kit is a Complete Installation Kit that Includes;
 A Bellows • Clamps and Gaskets • Additional Pipes (if required) • Simple to Follow Instructions*

BLUEBIRD BELLOWS KITS

HDM PART NUMBER	OEM PART NUMBER	INLET	OUTLET	OVERALL LENGTH	DESCRIPTION
71B-716131K	Q716131	4.0	4.0	13.50	Bluebird - OEM Flexible Bellows Kit - Torsional

FREIGHTLINER BELLOWS KITS

		INLET	OUTLET	OVERALL LENGTH	DESCRIPTION
71F-25023K	04-25023-016	4.0	4.0	16.00	Freightliner - OEM Flexible Bellows Kit
71F-26374K	A04-26374-016	4.0	4.0	16.00	Freightliner - OEM Flexible Bellows Kit
71F-27252K	04-27252-000	4.0	4.0	14.00	Freightliner - OEM Flexible Bellows Kit
71F-27254K	04-27254-000	4.0	4.0	29.00	Freightliner - OEM Flexible Bellows Kit
71F-27334K	A04-27334-018	5.0	5.0	18.00	Freightliner - OEM Flexible Bellows Kit
71F-28522K	A04-25022-018 A04-28522-000	5.0	5.0	16.50	Freightliner - OEM Flexible Bellows Kit
71F-28578K	04-25922-000 04-25922-018	4.0	4.0	16.00	Freightliner - OEM Flexible Bellows Kit
71F-28675K	04-28675-000	5.0	5.0	16.00	Freightliner - OEM Flexible Bellows Kit
71F-28907K	04-28907-000	4.0	4.0	31.00	Freightliner - OEM Flexible Bellows Kit

KENWORTH BELLOWS KITS

HDM PART NUMBER	OEM PART NUMBER	INLET	OUTLET	OVERALL LENGTH	DESCRIPTION
71K-6559K	M66-6559	2.5	2.5	13.75	Kenworth - OEM Flexible Bellows Kit
71K-3541K	M66-3541 M66-4111	4.0	4.0	12.60	Kenworth - OEM Flexible Bellows Kit - Torsional
71K-0330K	M66-7064-0330	4.0	4.0	13.00	Kenworth - OEM Flexible Bellows Kit

NAVISTAR BELLOWS KITS

HDM PART NUMBER	OEM PART NUMBER	INLET	OUTLET	OVERALL LENGTH	DESCRIPTION
71N-49C91K	3859149C91 2512967C91	4.0	4.0	14.50	Navistar - OEM Flexible Bellows Kit
71N-159C1K	3859159C1	4.0	4.0	52.60	Navistar - OEM Flexible Bellows Kit
71N-755C4K	3811755C4	4.0	4.0	16.80	Navistar - OEM Flexible Bellows Kit
71N-36C92K	3989136C92 3989136C93	4.0	4.0	30.00	Navistar - OEM Flexible Bellows Kit
71N-154C1K	3859154C1	4.0	4.0	13.00	Navistar - OEM Flexible Bellows Kit
71N-462C5K	3846462C5	4.0	4.0	12.00	Navistar - OEM Flexible Bellows Kit
71N-88C92K	4037288C92	3.5	3.5	14.00	Navistar - OEM Flexible Bellows Kit

PETERBILT BELLOWS KITS

HDM PART NUMBER	OEM PART NUMBER	INLET	OUTLET	OVERALL LENGTH	DESCRIPTION
71P-0320K	M66-7091-0320	3.5	3.5	12.60	Peterbilt - OEM Flexible Bellows Kit
71P-0335K	M66-7091-0335	3.5	3.5	13.20	Peterbilt - OEM Flexible Bellows Kit
71P-0405K	M66-7091-0405	3.5	3.5	15.90	Peterbilt - OEM Flexible Bellows Kit

VOLVO · MACK BELLOWS KITS

HDM PART NUMBER	OEM PART NUMBER	INLET	OUTLET	OVERALL LENGTH	DESCRIPTION
71V-1403K	21051403	5.0	5.0	12.15	Volvo / Mack - OEM Flexible Bellows Kit
71V-3396K	21533396	5.0	5.0	12.40	Volvo / Mack - OEM Flexible Bellows Kit
71V-7699K	22307699	4.0	4.0	15.20	Volvo / Mack - OEM Flexible Bellows Kit
71V-8532K	21428532	5.0	5.0	15.9	Volvo / Mack - OEM Flexible Bellows Kit
	21959389				
71V-8534K	22307697	4.0	5.0	17.70	Volvo / Mack - OEM Flexible Bellows Kit
	21428534				
	21959393				
71V-8536K	22307701	4.0	4.0	17.70	Volvo / Mack - OEM Flexible Bellows Kit - Torsional
	21428536				
	21959395				
	22307703				

HEAVY DUTY

MANUFACTURING, INC.

HEAVY DUTY

MANUFACTURING, INC.

MUFFLER SPECIFICATION SECTION

MUFFLER SPECIFICATIONS

HEAVY DUTY

MANUFACTURING, INC.

MUFFLER SPECIFICATIONS BY PART NUMBER

PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
30015	1	4.00	4.00	10.00	28.00	33.50	--	--	--	2.75	--	--	--	--
30077	2	5.00	5.00	11.09	44.00	50.00	2.50	2.50	--	3.00	--	--	6:00	12:00
30087	1	4.00	4.00	11.00	36.00	43.00	--	--	--	3.50	--	--	--	--
30183	1	5.00	5.00	10.00	33.00	40.00	--	--	--	3.50	--	--	--	--
30186	4	4.00	5.00 FLG	11.00	40.00	44.00		34.00	--	2.00	--	--	--	12:00
30280	3	4.00	5.00	10.0x15.0	26.50	30.50	22.00	4.00	--	3.00	--	--	--	1:00
30781	1	4.00	5.00	9.00	44.50	51.00	--	--	--	3.00	--	--	--	--
31001	2	2.75	2.75 OD	7.00	35.00	40.50	1.75	1.75	--	2.50	--	--	6:00	12:00
31002	2	2.00	2.00	6.00	24.00	29.00	1.50	1.50	--	2.50	--	--	6:00	12:00
31003	2	2.50	2.00	6.00	21.25	26.69	1.38	1.50	--	2.69	--	--	6:00	2:00
31004	2	2.50	2.50	6.62	28.00	35.00	1.62	1.62	--	3.50	--	--	6:00	12:00
31008	2	2.75	2.25	7.00	31.25	36.25	1.50	1.75	--	2.50	--	--	6:00	12:00
31015	2	3.00	3.00	8.50	31.25	36.25	2.00	2.00	--	2.50	--	--	6:00	12:00
31018	2	3.50	3.00	8.50	38.00	43.00	1.75	2.00	--	2.50	--	--	6:00	12:00
31019	2	3.00	3.00	8.50	27.75	33.75	2.00	2.00	--	3.50	--	--	6:00	12:00
31020	1	4.00	4.00	9.00	44.00	52.00	--	--	--	3.00	--	--	--	--
31021	1	5.00	5.00	9.00	44.00	51.00	--	--	--	3.50	--	--	--	--
31022	1	4.00	4.00	9.00	44.50	51.00	--	--	--	3.00	--	--	--	--
31023	1	5.00	5.00	9.00	44.50	51.00	--	--	--	3.00	--	--	--	--
31024*	R 1	5.00	5.00	9.00	10.00	16.00	3.00	--	--	--	--	--	--	--
31025	1	3.50	3.50	9.00	44.00	52.00	--	--	--	3.50	--	--	--	--
31026	2	3.50	3.50	8.25x11.5	26.00	32.25	2.50	2.50	--	3.12	--	--	9:00	3:00
31028	2	4.00	4.00	11.12	34.75	42.50	3.12	3.12	--	4.25	--	--	6:00	12:00
31031	2	4.00	4.00	10.08	27.75	33.50	2.44	2.44	--	2.88	--	--	6:00	12:00
31032	5	4.00	4.00	10.08	27.75	30.88	2.44	2.44	--	2.88	--	--	6:00	12:00
31034	2	2.50	2.50	6.62	18.81	23.00	1.62	1.62	--	1.50	--	--	6:00	12:00
31035	2	5.00	5.00	10.0x15.0	36.00	42.50	3.12	3.12	--	3.25	--	--	9:00	3:00
31036	2	4.00	4.00	10.0x15.0	26.00	32.50	4.25	4.25	--	3.25	--	--	9:00	3:00
31037	2	5.00	5.00	10.0x15.0	26.00	32.50	3.12	3.12	--	3.25	--	--	9:00	3:00
31038	1	3.00	3.13 OD	8.00	12.40	19.10	--	--	--	2.00	--	--	--	--
31043	2	4.00	4.00	10.12	35.38	41.75	2.44	2.44	--	2.88	--	--	6:00	12:00
31045	1	4.00	5.00	10.00	44.00	51.50	--	--	--	3.75	--	--	--	--

* (R1) - RESONATOR

ALL DIMENSIONS ARE IN INCHES

MUFFLER SPECIFICATIONS BY PART NUMBER

PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
31063	1	5.00	5.00	10.08	44.50	51.00	--	--	--	3.00	--	--	--	--
31074	1	2.00	2.12 OD	4.38	12.50	17.00	--	--	--	2.50	--	--	--	--
31075	3	1.68	1.65	4.38	13.5	15.78	--	--	2.75	4.00	--	--	--	6:00
31076	1	2.50	2.61 OD	6.62	15.00	22.00	--	--	--	3.50	--	--	--	--
31077	1	2.50 NPT	2.50 NPT	6.00	15.00	18.12	--	--	--	1.56	--	--	--	--
31078	2	3.00	3.00	8.50	27.50	32.00	2.00	2.00	--	1.50	--	--	6:00	12:00
31080	3	2.00	2.00	6.00	18.8	21.50	--	1.50	3.50	5.00	--	--	6:00	9:00
31081	3	2.50	2.50	6.62	20.8	23.50	--	1.62	3.50	6.00	--	--	6:00	9:00
31082	2	2.00	2.00	6.00	16.90	21.90	1.50	1.50	--	2.50	--	--	6:00	--
31083	3	4.00	5.00	9.00	44.50	48.00	--	--	3.81	6.69	--	--	6:00	12:00
31084	1	3.00 NPT	3.00 NPT	7.00	14.00	19.75	--	--	--	2.38	--	--	--	--
31085	1	3.50	3.50	7.00	14.00	19.75	--	--	--	2.38	--	--	--	--
31086	1	3.50 NPT	3.50 NPT	7.00	18.38	25.62	--	--	--	3.00	--	--	--	--
31096	1	4.00	4.00	8.50	33.00	40.00	--	--	--	2.50	--	--	--	--
31102	3	3.00	3.00	8.50	26.5	29.00	--	2.25	3.50	6.75	--	--	12:00	3:00
31104	2	3.00	3.00	8.50	20.50	25.00	2.00	2.00	--	1.50	--	--	6:00	12:00
31109*	R1	4.00	4.00	9.00	10.00	16.50	--	--	--	--	--	--	--	--
31112	1	4.00 NPT	4.00 NPT	9.00	20.00	26.00	--	--	--	3.00	--	--	--	--
31119	1	4.00	4.00	9.00	44.50	51.00	--	--	--	3.00	--	--	--	--
31123	2	4.00	4.00	8.25x11.5	26.00	32.25	2.50	2.50	--	3.12	--	--	9:00	3:00
31125	2	3.00	3.00	8.6x11.8	26.00	33.75	2.50	2.50	--	3.88	--	--	9:00	9:00
31126	2	3.00	3.00	8.25x11.5	26.00	33.75	2.50	2.50	--	3.88	--	--	9:00	9:00
31127	2	4.00	3.50	8.25x11.5	26.00	32.25	2.50	2.50	--	3.12	--	--	9:00	3:00
31133	4	4.00	4.00	8.25x11.5	26.00	29.88	2.50	--	--	3.88	15.20	6.00	--	--
31136	3	3.50	3.50	8.25x11.5	26.1	29.25	--	2.50	3.25	7.00	--	--	6:00	9:00
31139	4	4.00	4.00	10.12	27.75	31.00	2.44	--	--	3.00	24.25	8.75	4.00	12:00
31142	3	4.00	4.00	10.12	28.00	32.25	--	2.44	4.50	8.00	--	--	6:00	9:00
31143	1	5.00	5.00	11.09	50.50	57.00	--	--	--	3.00	--	--	--	--
31150	3	5.00	5.00	10.08	44.50	48.25	--	--	5.50	7.50	--	--	6:00	--
31162	1	5.00	5.00	10.00	44.50	55.00	--	--	--	3.00	--	--	--	--
31163	1	5.00	5.00	10.00	58.00	66.00	--	--	--	4.00	--	--	--	--
31164	1	4.00	4.00	10.08	44.50	51.00	--	--	--	3.00	--	--	--	--
31165	1	5.00	5.00	10.00	44.00	51.50	--	--	--	3.75	--	--	--	--

* (R1) - RESONATOR

ALL DIMENSIONS ARE IN INCHES

MUFFLER SPECIFICATIONS

HEAVY DUTY

MANUFACTURING, INC.

MUFFLER SPECIFICATIONS BY PART NUMBER

PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
31165ST*	1	5.00	5.00	10.00	44.00	51.00	--	--	--	3.50	--	--	--	--
31166	1	4.00	4.00	10.00	44.00	52.00	--	--	--	3.00	--	--	--	--
31173	4	4.00	4.00	10.0x15.0	21.88	24.88	4.25	--	--	2.88	7.25	9.80	9:00	3:00
31181	5	5.00	5.00	10.0x15.0	26.00	29.38	3.12	3.12	--	3.25	--	--	9:00	3:00
31186	4	4.00	4.00	10.3x15.3	36.12	39.12	4.25	--	--	3.00	3.94	8.50	9:00	11:00
31189	2	4.00	4.00	11.09	36.00	41.25	2.50	2.50	--	2.62	--	--	6:00	12:00
31191	3	5.00	5.00	10.0x15.0	35.88	40.00	--	3.12	6.00	8.00	--	--	6:00	9:00
31197	2	6.00	6.00	10.0x15.0	31.75	42.50	3.59	3.59	--	5.38	--	--	9:00	9:00
31199	2	5.00	5.00	10.0x15.0	26.00	32.50	3.12	3.12	--	3.25	--	--	9:00	3:00
31200	5	5.00	5.00	10.0x15.0	26.00	29.38	3.12	3.12	--	3.25	--	--	9:00	3:00
31202	3	4.00	3.90 OD	10.0x15.0	15.0	21.57	--	4.40	3.25	10.8	--	--	3:00	3:00
31204	2	4.00	4.00	10.3x15.3	36.12	42.00	4.25	0.50	--	2.94	--	--	9:00	3:00
31209	2	6.00	6.00	14.2x21.12	35.00	47.00	5.25	5.25	--	6.00	--	--	9:00	3:00
31211	2	8.00	8.00	16.12x24.12	45.00	57.00	6.00	6.00	--	6.00	--	--	9:00	9:00
31212	2A	2.50 (2)	3.00	8.50	29.50	36.75	1.25	2.13	--	3.88	--	--	5:00-7:00	12:00
31214	4	3.50	4.00	8.25x11.5	32.56	35.16	2.50	--	--	2.60	20.48	6.42	3:00	1:00
31215	4	3.50	4.00 OD	8.25x11.5	32.56	35.16	2.50	--	--	2.60	20.48	9.25	3:00	6:30
31217	4	4.00	4.00	10.3x15.3	43.19	48.98	4.25	--	--	4.50	37.94	9.50	9:00	3:00
31218	4	5.00	5.00	10.0x15.0	36.00	39.25	3.12	--	--	3.12	28.50	9.50	9:00	3:00
31219	2	2.50	2.00	6.00	29.00	34.44	1.38	1.50	--	2.69	--	--	6:00	12:00
31223	2A	2.50 (2)	2.75	8.50	30.00	39.00	1.62	2.00	--	2.50	--	--	4:00-8:00	6:00
31224	1	5.00	5.00	10.08	44.50	51.00	--	--	--	3.00	--	--	--	--
31225	2	4.00	4.00	8.25x11.5	26.00	33.75	2.50	2.50	--	3.88	--	--	9:00	3:00
31226	2A	2.75 (2)	4.00	8.3x11.5	27.00	32.75	4.00	2.50	--	2.63	--	--	4:00-8:00	9:00
31227	2	3.50	4.00	8.25x11.5	26.50	32.25	2.50	2.50	--	3.12	--	--	9:00	3:00
31230	2	4.00	4.00	11.09	30.00	36.00	2.50	2.50	--	3.00	--	--	6:00	12:00
31231	4	5.00	5.00	11.09	46.00	51.75	2.50	--	--	4.25	38.50	8.50	12:00	6:00
31232	4	4.00	4.00	11.09	30.00	33.25	2.50	--	--	3.00	4.25	9.00	12:00	10:00
31233	4	4.00	4.00	11.09	36.00	39.25	2.50	--	--	3.00	4.25	9.00	12:00	10:00
31234	2	6.00	6.00	12.12x18.12	30.00	38.00	4.50	4.50	--	4.00	--	--	9:00	3:00
31235	4	2.00	2.00	6.00	18.81	21.50	1.50	--	--	2.69	3.50	5.00	9:00	12:00
31237	4	3.00	3.00	8.50	26.50	29.50	2.00	--	--	3.25	3.50	6.75	9:00	12:00

* (ST) - STRAIGHT THROUGH MUFFLER * (R1) - RESONATOR

ALL DIMENSIONS ARE IN INCHES

MUFFLER SPECIFICATIONS BY PART NUMBER

PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
31238	4	3.50	3.50	8.25x11.5	26.00	29.25	2.50	--	--	3.12	3.38	7.00	9:00	12:00
31240	4	5.00	5.00	10.0x15.0	28.00	32.12	3.12	--	--	4.00	4.75	8.00	9:00	12:00
31241	5	2.00	2.00	6.00	16.90	19.40	1.50	1.50	--	2.50	--	--	6:00	12:00
31242	5	2.50	2.50	6.62	20.00	21.50	1.62	1.62	--	1.50	--	--	6:00	12:00
31243	5	3.00	3.00	8.50	22.00	23.50	2.00	2.00	--	1.50	--	--	6:00	12:00
31245	6	2.00	2.00	6.00	18.81	18.81	--	--	3.50	5.00	3.50	5.00	6:00	12:00
31246	6	2.50	2.50	6.62	20.81	20.81	--	--	3.50	6.00	3.50	6.00	6:00	12:00
31247	6	3.00	3.00	8.50	27.00	27.00	--	--	3.50	6.75	3.50	6.75	6:00	12:00
31248	6	3.50	3.50	8.25x11.5	26.00	26.00	--	--	3.38	7.00	3.38	7.00	6:00	12:00
31249	6	4.00	4.00	10.12	28.00	30.62	--	--	4.50	8.00	4.50	8.00	6:00	12:00
31250	6	5.00	5.00	10.0x15.0	28.00	28.25	--	--	5.00	8.00	5.00	8.00	6:00	12:00
31251	1	2.00 NPT	2.00 NPT	6.00	15.00	20.38	--	--	--	2.69	--	--	--	--
31252	1	4.00	4.00	9.00	20.00	26.50	--	--	--	3.00	--	--	--	--
31253	1	5.00	5.00	9.00	23.00	30.00	--	--	--	3.50	--	--	--	--
31254	3	2.20	2.00 OD	4.38	19.5	36.75	--	--	1.75	5.44	--	--	6:00	--
31267S	2A	2.50 FLG (2)	2.98 OD	8.73	30.00	38.97	1.62	2.00	--	2.50	--	--	4:00-8:00	12:00
31293	1	2.88 FLG	3.16 OD	8.50	31.62	46.25	--	--	--	NONE	--	--	--	--
31308S	2A	2.50 (2)	2.75	8.50	30.00	39.00	1.62	2.00	--	2.50	--	--	4:00-8:00	6:00
31367	4	4.00	4.00	10.0x15.0	30.38	34.00	4.25	--	--	3.50	22.87	10.50	9:00	3:00
31391	1	4.38	4.50 OD	9.00	17.81	26.75	--	--	--	4.81	--	--	--	--
31479	3	4.00	4.00	11.09	36.00	39.00	--	2.50	4.25	8.64	--	--	6:00	3:00
31480	3	4.00	4.00 OD	11.09	36.00	44.59	--	2.50	3.75	8.6	--	--	9:00	12:00
31481	6	4.00	4.00	11.09	36.00	36.18	--	--	4.25	8.64	17.25	8.64	12:00	10:00
31482	6	4.00	4.00 OD	11.09	36.00	36.18	--	--	4.25	8.64	13.50	9.50	12:00	2:00
31514	1	4.00	5.00	9.00	44.00	51.50	--	--	--	3.00	--	--	--	--
31566	3	4.00	5.00	10.0x15.0	21.00	25.25	--	4.25	3.13	10.80	--	--	3:00	3:00
31572	1	5.00	5.00	6.00	44.00	51.00	--	--	--	3.00	--	--	--	--
31580	1	5.00	5.00	10.08	44.50	51.00	--	--	--	3.00	--	--	--	--
31582	1	5.00	5.00	10.00	44.00	51.00	--	--	--	3.50	--	--	--	--
31584	3	3.50	3.00	8.50	27.0	29.50	--	2.00	4.50	7.25	--	--	6:00	9:00
31680	2	3.50	4.00	8.25x11.5	30.00	36.25	2.50	2.50	--	3.12	--	--	9:00	3:00

ALL DIMENSIONS ARE IN INCHES

MUFFLER SPECIFICATIONS

HEAVY DUTY

MANUFACTURING, INC.

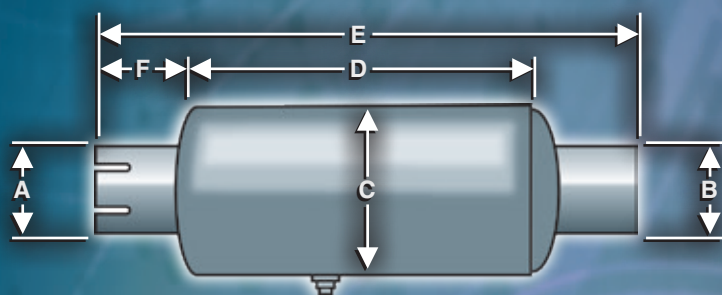
MUFFLER SPECIFICATIONS BY PART NUMBER

PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
31808	3	4.00	4.00	9.00	42.00	45.00	--	--	4.25	7.50	--	--	6:00	--
31824	1	5.00	5.00	11.00	55.00	61.00	--	--	--	3.00	--	--	--	--
32011	5	5.00	5.00	10.0x15.0	26.00	29.00	3.00	3.00	--	3.00	--	--	12:00	6:00
32075	1	5.00	6.00	10.00	44.50	51.00	--	--	--	3.00	--	--	--	--
32076	4	5.00	5.00	11.00	36.00	39.00	2.25	28.50	--	3.50	--	--	--	--
33260	2A	2.50 FLG (2)	3.0 OD	8.50	29.50	38.50	1.24	2.13	--	5.50	--	--	5:00-7:00	12:00
34023	4	4.00	4.00	11.00	36.00	39.50	1.50	32.00	--	3.50	--	--	6:00	12:00
34025	2	5.00	5.00	11.00	36.00	44.00	2.50	2.50	--	3.50	--	--	6:00	12:00
34525	1	4.00	4.00	10.00	34.00	43.00	--	--	--	--	--	--	--	--
35210	5	5.00	6.00	10.0x15.0	44.00	48.00	3.00	3.00	--	3.50	--	--	12:00	6:00
37633	4	3.50	4.00	8.25x11.5	32.00	35.00	2.50	24.70	--	2.90	--	--	12:00	3:30
37727	3	4.00	5.00	10.0x15.0	26.50	30.50	22.00	4.00	--	3.00	--	--	1:00	--
37733	3	5.00	5.00	12.0x15.0	27.00	29.80	22.4	3.60	--	3.00	--	--	6:30	11:00
9XD-606	1	6.00	6.00	9.00	44.75	52.00	--	--	--	3.63	--	--	--	--
HD-225	1	2.25	2.25	6.00	20.00	30.00	5.00	--	--	--	--	--	--	--
HD-250	1	2.50	2.50	6.00	20.00	30.00	5.00	--	--	--	--	--	--	--
HD-300	1	3.00	3.00	6.00	20.00	30.00	5.00	--	--	--	--	--	--	--
HD-300-39	1	3.00	3.00	7.00	26.00	32.50	6.00	--	--	--	--	--	--	--
HD-350	1	3.50	3.50	7.00	28.00	38.00	5.00	--	--	--	--	--	--	--
HD-400	1	4.00	4.00	7.00	28.00	38.00	5.00	--	--	--	--	--	--	--
HD-414	1	4.00	4.00	9.00	20.00	26.50	3.00	--	--	--	--	--	--	--
HD-416	4	4.00	4.00	8.0x11.0	18.50	22.00	3.50	--	--	--	--	--	--	--
HD-501	1	5.00	5.00	9.00	33.00	40.00	3.50	--	--	--	--	--	--	--
SA300	SA	3.00	3.00	7.60	--	14.60	--	--	--	--	--	--	--	--
SA350	SA	3.50	3.50	9.00	--	16.50	--	--	--	--	--	--	--	--
SA400	SA	4.00	4.00	10.60	--	18.10	--	--	--	--	--	--	--	--
SA500	SA	5.00	5.00	11.80	--	20.80	--	--	--	--	--	--	--	--

ALL DIMENSIONS ARE IN INCHES

SPARK ARRESTORS

- Tested and U.S. Forest Service approved for vertical and horizontal installations.
- Reduces fire hazard - 95% or greater efficiency on incendiary sparks.
- Centrifugal force separates solids from exhaust gas.
- Aluminized steel with stainless steel critical parts.



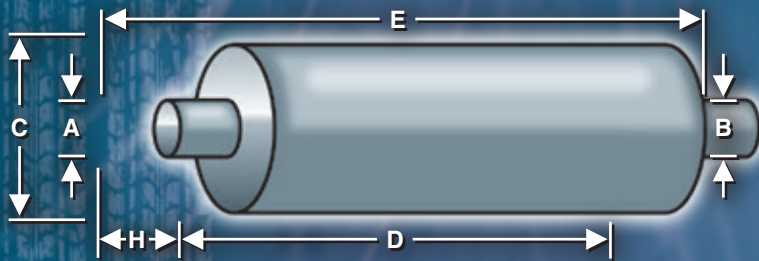
	A	B	C	D	E
PART NUMBER	INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH
SPARK ARRESTORS - MOST POPULAR					
SA300	3.0	3.0	7.6	--	14.6
SA350	3.5	3.5	9.0	--	16.5
SA400	4.0	4.0	10.6	--	18.1
SA500	5.0	5.0	11.8	--	20.8

ALL DIMENSIONS ARE IN INCHES

MUFFLER SPECIFICATIONS

HEAVY DUTY MANUFACTURING, INC.

MUFFLERS / RESONATORS



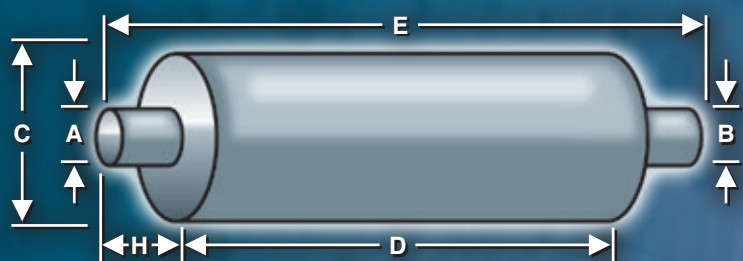
Exhaust Flow

PART NUMBER	TYPE	A INLET ID	B OUTLET ID	C BODY DIA.	D BODY LENGTH	E OVERALL LENGTH	F INLET OFFSET
MUFFLERS - STANDARD LINE (Gas and Diesel Applications)							
HD-225	1	2.25	2.25	6.0	20.0	30.0	5.0
HD-250	1	2.5	2.5	6.0	20.0	30.0	5.0
HD-300	1	3.0	3.0	6.0	20.0	30.0	5.0
HD-300-39	1	3.0	3.0	7.0	26.5	32.5	6.0
HD-350	1	3.5	3.5	7.0	28.0	38.0	5.0
HD-400	1	4.0	4.0	7.0	28.0	38.0	5.0
HD-414	1	4.0	4.0	9.0	20.0	26.5	3.0
HD-416	4	4.0	4.0	8 x 11	18.5	22.0	3.5
HD-501	1	5.0	5.0	9.0	33.0	40.0	3.5
RESONATORS - STANDARD LINE (Type - R1)							
31109*	R1	4.00	4.00	9.0	10.0	16.0	3.0
31024*	R1	5.00	5.00	9.0	10.0	16.0	3.0

* (R1) - RESONATOR

ALL DIMENSIONS ARE IN INCHES

MUFFLER DIMENSION BY TYPE AND INLET SIZE - Type 1



End In / End Out
Both On Center

Exhaust Flow



MOST POPULAR

PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER
31096	1	4.00	4.00	8.50	33.00	40.00	--	--	--	3.50	--	--
31020	1	4.00	4.00	9.00	44.00	52.00	--	--	--	3.00	--	--
31514	1	4.00	5.00	9.00	44.00	51.50	--	--	--	3.00	--	--
31045	1	4.00	5.00	10.00	44.00	51.50	--	--	--	3.75	--	--
31021	1	5.00	5.00	9.00	44.00	51.00	--	--	--	3.50	--	--
31024*	R1	5.00	5.00	9.00	10.00	16.00	--	--	--	3.00	--	--
31165	1	5.00	5.00	10.00	44.00	51.50	--	--	--	3.75	--	--

* (R1) - RESONATOR

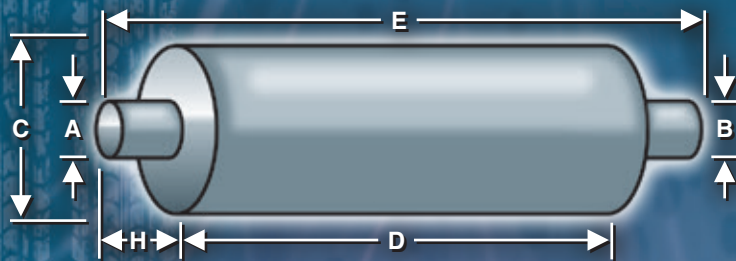
ALL DIMENSIONS ARE IN INCHES

MUFFLER SPECIFICATIONS

HEAVY DUTY

MANUFACTURING, INC.

MUFFLER DIMENSION BY TYPE AND INLET SIZE - Type 1



End In / End Out
Both On Center

Exhaust Flow

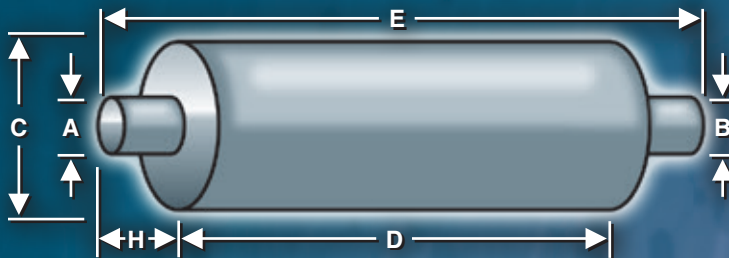


PART NUMBER	TYPE	A INLET ID	B OUTLET ID	C BODY DIA.	D BODY LENGTH	E OVERALL LENGTH	F INLET OFFSET	G OUTLET OFFSET	H INLET TUBE LOC.	I INLET TUBE LENGTH	J OUTLET TUBE LENGTH	K OUTLET TUBE CENTER
31251	1	2.00 NPT	2.00 NPT	6.00	15.00	20.38	--	--	--	2.69	--	--
31074	1	2.00	2.12 OD	4.38	12.50	17.00	--	--	--	2.50	--	--
31077	1	2.50 NPT	2.50 NPT	6.00	15.00	18.12	--	--	--	1.56	--	--
31076	1	2.50	2.61 OD	6.62	15.00	22.00	--	--	--	3.50	--	--
31293	1	2.88 FLG	3.16 OD	8.50	31.62	46.25	--	--	--	NONE	--	--
31084	1	3.00 NPT	3.00 NPT	7.00	14.00	19.75	--	--	--	2.38	--	--
31038	1	3.00	3.13 OD	8.00	12.40	19.10	--	--	--	2.00	--	--
31086	1	3.50 NPT	3.50 NPT	7.00	18.38	25.62	--	--	--	3.00	--	--
31085	1	3.50	3.50	7.00	14.00	19.75	--	--	--	2.38	--	--
31025	1	3.50	3.50	9.00	44.00	52.00	--	--	--	3.50	--	--
31109*	R1	4.00	4.00	9.00	10.00	16.50	--	--	--	--	--	--
31112	1	4.00 NPT	4.00 NPT	9.00	20.00	26.00	--	--	--	3.00	--	--
31096	1	4.00	4.00	8.50	33.00	40.00	--	--	--	2.50	--	--
31252	1	4.00	4.00	9.00	20.00	26.50	--	--	--	3.00	--	--
31020	1	4.00	4.00	9.00	44.00	52.00	--	--	--	3.00	--	--
31022	1	4.00	4.00	9.00	44.50	51.00	--	--	--	3.00	--	--
31119	1	4.00	4.00	9.00	44.50	51.00	--	--	--	3.00	--	--
30015	1	4.00	4.00	10.00	28.00	33.50	--	--	--	2.75	--	--
34525	1	4.00	4.00	10.00	34.00	43.00	--	--	--	--	--	--
30087	1	4.00	4.00	11.00	36.00	43.00	--	--	--	3.50	--	--
31164	1	4.00	4.00	10.08	44.50	51.00	--	--	--	3.00	--	--
31166	1	4.00	4.00	10.00	44.00	52.00	--	--	--	3.00	--	--

* (R1) - RESONATOR

ALL DIMENSIONS ARE IN INCHES

MUFFLER DIMENSION BY TYPE AND INLET SIZE - Type 1



End In / End Out
Both On Center

Exhaust Flow



PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER
31514	1	4.00	5.00	9.00	44.00	51.50	--	--	--	3.00	--	--
30781	1	4.00	5.00	9.00	44.50	51.00	--	--	--	3.00	--	--
31045	1	4.00	5.00	10.00	44.00	51.50	--	--	--	3.75	--	--
31391	1	4.38	4.5 OD	9.00	17.81	26.75	--	--	--	4.81	--	--
31253	1	5.00	5.00	9.00	23.00	30.00	--	--	--	3.50	--	--
31021	1	5.00	5.00	9.00	44.00	51.00	--	--	--	3.50	--	--
31023	1	5.00	5.00	9.00	44.50	51.00	--	--	--	3.00	--	--
31162	1	5.00	5.00	11.00	55.00	61.00	--	--	--	3.00	--	--
30183	1	5.00	5.00	10.00	33.00	40.00	--	--	--	3.50	--	--
31165	1	5.00	5.00	10.00	44.00	51.50	--	--	--	3.75	--	--
31165ST*	1	5.00	5.00	10.00	44.00	51.00	--	--	--	3.50	--	--
31063	1	5.00	5.00	10.08	44.50	51.00	--	--	--	3.00	--	--
31580	1	5.00	5.00	10.08	44.50	51.00	--	--	--	3.00	--	--
31582	1	5.00	5.00	10.00	44.00	51.00	--	--	--	3.50	--	--
31224	1	5.00	5.00	10.08	44.50	51.00	--	--	--	3.00	--	--
31163	1	5.00	5.00	10.00	58.00	66.00	--	--	--	4.00	--	--
31143	1	5.00	5.00	11.09	50.50	57.00	--	--	--	3.00	--	--
31824	1	5.00	5.00	11.00	55.00	61.00	--	--	--	3.00	--	--
32075	1	5.00	6.00	10.00	44.50	51.00	--	--	--	3.00	--	--
9XD-606	1	6.00	6.00	9.00	44.75	52.00	--	--	--	3.63	--	--

* (31165ST) - STRAIGHT THROUGH MUFFLER

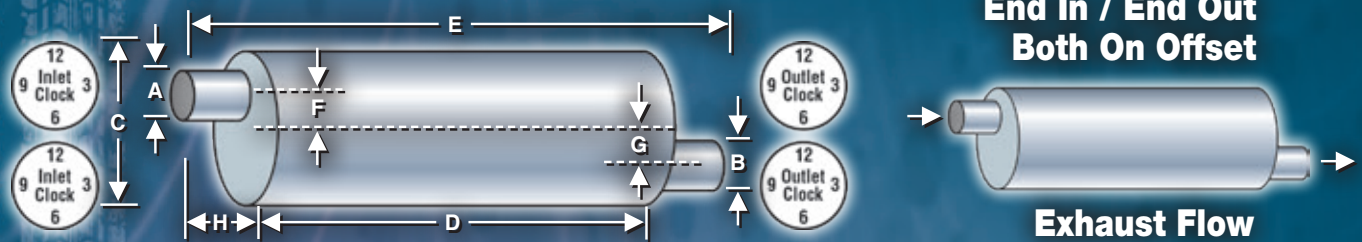
ALL DIMENSIONS ARE IN INCHES

MUFFLER SPECIFICATIONS

HEAVY DUTY

MANUFACTURING, INC.

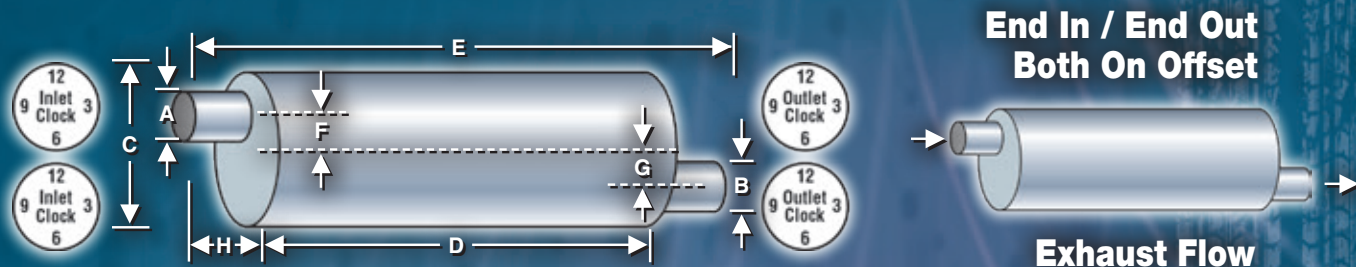
MUFFLER DIMENSION BY TYPE AND INLET SIZE - Type 2



PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
31082	2	2.00	2.00	6.00	16.90	21.90	1.50	1.50	--	2.50	--	--	6:00	--
31002	2	2.00	2.00	6.00	24.00	29.00	1.50	1.50	--	2.50	--	--	6:00	12:00
31003	2	2.50	2.00	6.00	21.25	26.69	1.38	1.50	--	2.69	--	--	6:00	2:00
31219	2	2.50	2.00	6.00	29.00	34.44	1.38	1.50	--	2.69	--	--	6:00	12:00
31004	2	2.50	2.50	6.62	28.00	35.00	1.62	1.62	--	3.50	--	--	6:00	12:00
31034	2	2.50	2.50	6.62	18.81	23.00	1.62	1.62	--	1.50	--	--	6:00	12:00
31001	2	2.75	2.75 OD	7.00	35.00	40.50	1.75	1.75	--	2.50	--	--	6:00	12:00
31008	2	2.75	2.25	7.00	31.25	36.25	1.50	1.75	--	2.50	--	--	6:00	12:00
31104	2	3.00	3.00	8.50	20.50	25.00	2.00	2.00	--	1.50	--	--	6:00	12:00
31078	2	3.00	3.00	8.50	27.50	32.00	2.00	2.00	--	1.50	--	--	6:00	12:00
31019	2	3.00	3.00	8.50	27.75	33.75	2.00	2.00	--	3.50	--	--	6:00	12:00
31015	2	3.00	3.00	8.50	31.25	36.25	2.00	2.00	--	2.50	--	--	6:00	12:00
31126	2	3.00	3.00	8.25x11.5	26.00	33.75	2.50	2.50	--	3.88	--	--	9:00	9:00
31125	2	3.00	3.00	8.6 X 11.8	26.00	33.75	2.50	2.50	--	3.88	--	--	9:00	9:00
31018	2	3.50	3.00	8.50	38.00	43.00	1.75	2.00	--	2.50	--	--	6:00	12:00
31026	2	3.50	3.50	8.25x11.5	26.00	32.25	2.50	2.50	--	3.12	--	--	9:00	3:00
31227	2	3.50	4.00	8.25x11.5	26.50	32.25	2.50	2.50	--	3.12	--	--	9:00	3:00
31680	2	3.50	4.00	8.25x11.5	30.00	36.25	2.50	2.50	--	3.12	--	--	9:00	3:00
31127	2	4.00	3.50	8.25x11.5	26.00	32.25	2.50	2.50	--	3.12	--	--	9:00	3:00
31031	2	4.00	4.00	10.08	27.75	33.50	2.44	2.44	--	2.88	--	--	6:00	12:00
31043	2	4.00	4.00	10.12	35.38	41.75	2.44	2.44	--	2.88	--	--	6:00	12:00
31036	2	4.00	4.00	10.0x15.0	26.00	32.50	4.25	4.25	--	3.25	--	--	9:00	3:00
31230	2	4.00	4.00	11.09	30.00	36.00	2.50	2.50	--	3.00	--	--	6:00	12:00

ALL DIMENSIONS ARE IN INCHES

MUFFLER DIMENSION BY TYPE AND INLET SIZE - Type 2



PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
31189	2	4.00	4.00	11.09	36.00	41.25	2.50	2.50	--	2.62	--	--	6:00	12:00
31028	2	4.00	4.00	11.12	34.75	42.50	3.12	3.12	--	4.25	--	--	6:00	12:00
31123	2	4.00	4.00	8.25 x 11.5	26.00	32.25	2.50	2.50	--	3.12	--	--	9:00	3:00
31225	2	4.00	4.00	8.25 x 11.5	26.00	33.75	2.50	2.50	--	3.88	--	--	9:00	3:00
31204	2	4.00	4.00	10.3 x 15.3	36.12	42.00	4.25	0.50	--	2.94	--	--	9:00	3:00
34025	2	5.00	5.00	11.00	36.00	44.00	2.50	2.50	--	3.50	--	--	6:00	12:00
30077	2	5.00	5.00	11.09	44.00	50.00	2.50	2.50	--	3.00	--	--	6:00	12:00
31035	2	5.00	5.00	10.0 x 15.0	36.00	42.50	3.12	3.12	--	3.25	--	--	9:00	3:00
31037	2	5.00	5.00	10.0 x 15.0	26.00	32.50	3.12	3.12	--	3.25	--	--	9:00	3:00
31199	2	5.00	5.00	10.0 x 15.0	26.00	32.50	3.12	3.12	--	3.25	--	--	9:00	3:00
31234	2	6.00	6.00	12.12 x 18.12	30.00	38.00	4.50	4.50	--	4.00	--	--	9:00	3:00
31197	2	6.00	6.00	10.0 x 15.0	31.75	42.50	3.59	3.59	--	5.38	--	--	9:00	9:00
31209	2	6.00	6.00	14.20 x 21.12	35.00	47.00	5.25	5.25	--	6.00	--	--	9:00	3:00
31211	2	8.00	8.00	16.12 x 24.12	5.00	57.00	6.00	6.00	--	6.00	--	--	9:00	9:00

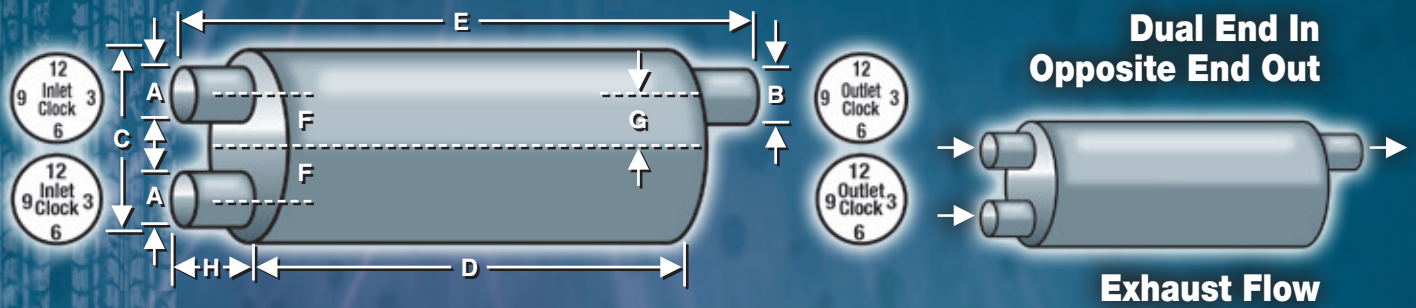
ALL DIMENSIONS ARE IN INCHES

MUFFLER SPECIFICATIONS

HEAVY DUTY

MANUFACTURING, INC.

MUFFLER DIMENSION BY TYPE AND INLET SIZE - Type 2A



PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
31223	2A	2.50 (2)	2.75	8.50	30.00	39.00	1.62	2.00	--	2.50	--	--	4:00-8:00	6:00
31308S	2A	2.50 (2)	2.75	8.50	30.00	39.00	1.62	2.00	--	2.50	--	--	4:00-8:00	6:00
31267S	2A	2.50 FLG (2)	2.98 OD	8.73	30.00	38.97	1.62	2.00	--	2.50	--	--	4:00-8:00	12:00
33260	2A	2.50 FLG (2)	3.0 OD	8.50	29.50	38.50	1.24	2.13	--	5.50	--	--	5:00-7:00	12:00
31212	2A	2.50 (2)	3.00	8.50	29.50	36.75	1.25	2.13	--	3.88	--	--	5:00-7:00	12:00
31226	2A	2.75 (2)	4.00	8.3 x 11.5	27.00	32.75	4.00	2.50	--	2.63	--	--	4:00-8:00	9:00

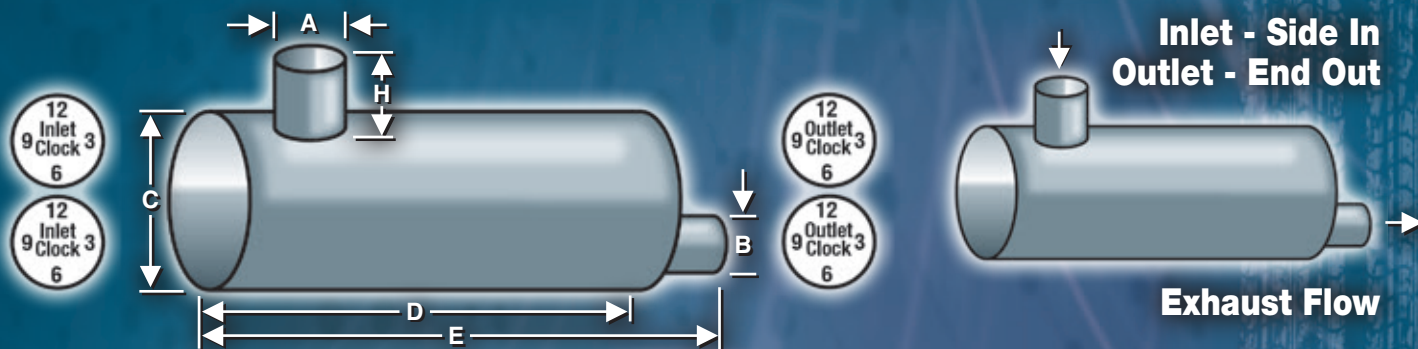
ALL DIMENSIONS ARE IN INCHES

HEAVY DUTY

MANUFACTURING, INC.

MUFFLER SPECIFICATIONS

MUFFLER DIMENSION BY TYPE AND INLET SIZE - Type 3



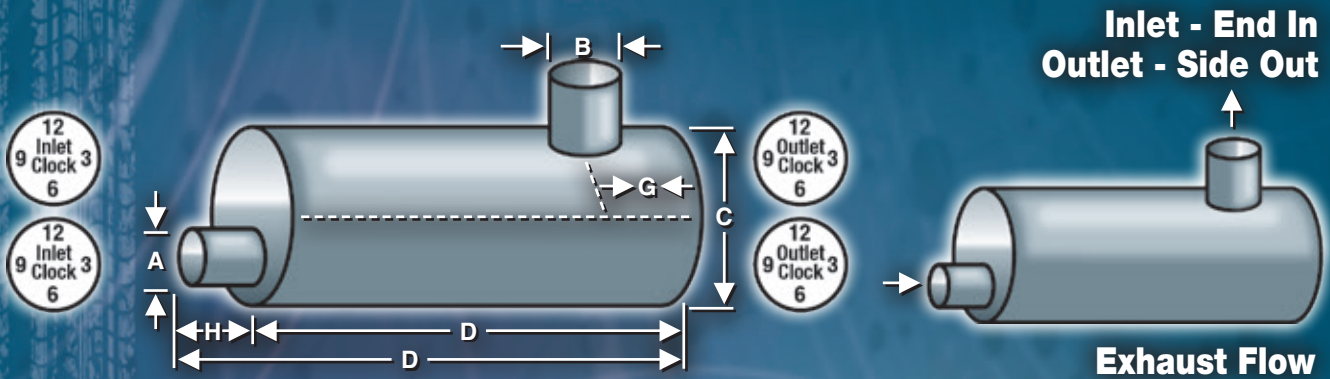
PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
31075	3	1.68	1.65	4.38	13.5	15.78	--	--	2.75	4.00	--	--	--	6:00
31080	3	2.00	2.00	6.00	18.8	21.50	--	1.50	3.50	5.00	--	--	6:00	9:00
31254	3	2.20	2.00 OD	4.38	19.5	36.75	--	--	1.75	5.44	--	--	6:00	--
31081	3	2.50	2.50	6.62	20.8	23.50	--	1.62	3.50	6.00	--	--	6:00	9:00
31102	3	3.00	3.00	8.50	26.5	29.00	--	2.25	3.50	6.75	--	--	12:00	3:00
31584	3	3.50	3.00	8.50	27.0	29.50	--	2.00	4.50	7.25	--	--	6:00	9:00
31136	3	3.50	3.50	8.25 x 11.5	26.1	29.25	--	2.50	3.25	7.00	--	--	6:00	9:00
31202	3	4.00	3.90 OD	10.0 x 15.0	15.0	21.57	--	4.40	3.25	10.8	--	--	3:00	3:00
31480	3	4.00	4.00 OD	11.09	36.0	44.59	--	2.50	3.75	8.6	--	--	9:00	12:00
31808	3	4.00	4.00	9.00	42.00	45.00	--	--	4.25	7.50	--	--	6:00	--
31142	3	4.00	4.00	10.12	28.00	32.25	--	2.44	4.50	8.00	--	--	6:00	9:00
31479	3	4.00	4.00	11.09	36.00	39.00	--	2.50	4.25	8.64	--	--	6:00	3:00
31083	3	4.00	5.00	9.00	44.50	48.00	--	--	3.81	6.69	--	--	6:00	12:00
31566	3	4.00	5.00	10.0 x 15.0	21.00	25.25	--	4.25	3.13	10.80	--	--	3:00	3:00
30280	3	4.00	5.00	10.0 x 15.0	26.50	30.50	22.00	4.00	--	3.00	--	--	--	1:00
37727	3	4.00	5.00	10.0 x 15.0	26.50	30.50	22.00	4.00	--	3.00	--	--	1:00	--
31150	3	5.00	5.00	10.08	44.50	48.25	--	--	5.50	7.50	--	--	6:00	--
31191	3	5.00	5.00	10.0 x 15.0	35.88	40.00	--	3.12	6.00	8.00	--	--	6:00	9:00
37733	3	5.00	5.00	12.0 x 15.0	27.00	29.80	22.4	3.60	--	3.00	--	--	6:30	11:00

ALL DIMENSIONS ARE IN INCHES

MUFFLER SPECIFICATIONS

HEAVY DUTY MANUFACTURING, INC.

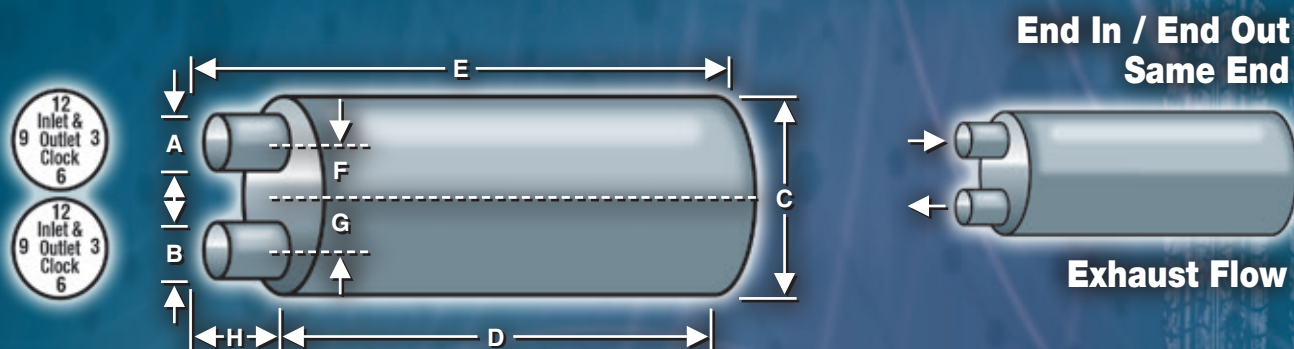
MUFFLER DIMENSION BY TYPE AND INLET SIZE - Type 4



PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
31235	4	2.00	2.00	6.00	18.81	21.50	1.50	--	--	2.69	3.50	5.00	9:00	12:00
31237	4	3.00	3.00	8.50	26.50	29.50	2.00	--	--	3.25	3.50	6.75	9:00	12:00
31238	4	3.50	3.50	8.25 x 11.5	26.00	29.25	2.50	--	--	3.12	3.38	7.00	9:00	12:00
31214	4	3.50	4.00	8.25 x 11.5	32.56	35.16	2.50	--	--	2.60	20.48	6.42	3:00	1:00
37633	4	3.50	4.00	8.25 x 11.5	32.00	35.00	2.50	24.70	--	2.90	--	--	12:00	3:30
31215	4	3.50	4.00 OD	8.25 x 11.5	32.56	35.16	2.50	--	--	2.60	20.48	9.25	3:00	6:30
31133	4	4.00	4.00	8.25 x 11.5	26.00	29.88	2.50	--	--	3.88	15.20	6.00	--	--
31173	4	4.00	4.00	10.0 x 15.0	21.88	24.88	4.25	--	--	2.88	7.25	9.80	9:00	3:00
31367	4	4.00	4.00	10.0 x 15.0	30.38	34.00	4.25	--	--	3.50	22.87	10.50	9:00	3:00
31186	4	4.00	4.00	10.3 x 15.3	36.12	39.12	4.25	--	--	3.00	3.94	8.50	9:00	11:00
31217	4	4.00	4.00	10.3 x 15.3	43.19	48.98	4.25	--	--	4.50	37.94	9.50	9:00	3:00
31139	4	4.00	4.00	10.12	27.75	31.00	2.44	--	--	3.00	24.25	8.75	4:00	12:00
31232	4	4.00	4.00	11.09	30.00	33.25	2.50	--	--	3.00	4.25	9.00	12:00	10:00
31233	4	4.00	4.00	11.09	36.00	39.25	2.50	--	--	3.00	4.25	9.00	12:00	10:00
34023	4	4.00	4.00	11.00	36.00	39.50	1.50	32.00	--	3.50	--	--	6:00	12:00
31240	4	5.00	5.00	10.0 x 15.0	28.00	32.12	3.12	--	--	4.00	4.75	8.00	9:00	12:00
30186	4	4.00	5.00 FLG	11.00	40.00	44.00	--	34.00	--	2.00	--	--	--	12:00
32076	4	5.00	5.00	11.00	36.00	39.00	2.25	28.50	--	3.50	--	--	--	--
31231	4	5.00	5.00	11.09	46.00	51.75	2.50	--	--	4.25	38.50	8.50	12:00	6:00
31218	4	5.00	5.00	10.0 x 15.0	36.00	39.25	3.12	--	--	3.12	28.50	9.50	9:00	3:00

ALL DIMENSIONS ARE IN INCHES

MUFFLER DIMENSION BY TYPE AND INLET SIZE - Type 5



PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
31241	5	2.00	2.00	6.00	16.90	19.40	1.50	1.50	--	2.50	--	--	6:00	12:00
31242	5	2.50	2.50	6.62	20.00	21.50	1.62	1.62	--	1.50	--	--	6:00	12:00
31243	5	3.00	3.00	8.50	22.00	23.50	2.00	2.00	--	1.50	--	--	6:00	12:00
31032	5	4.00	4.00	10.08	27.75	30.88	2.44	2.44	--	2.88	--	--	6:00	12:00
31181	5	5.00	5.00	10.0 x 15.0	26.00	29.38	3.12	3.12	--	3.25	--	--	9:00	3:00
31200	5	5.00	5.00	10.0 x 15.0	26.00	29.38	3.12	3.12	--	3.25	--	--	9:00	3:00
32011	5	5.00	5.00	10.0 x 15.0	26.00	29.00	3.00	3.00	--	3.00	--	--	12:00	6:00
35210	5	5.00	6.00	10.0 x 15.0	44.00	48.00	3.00	3.00	--	3.50	--	--	12:00	6:00

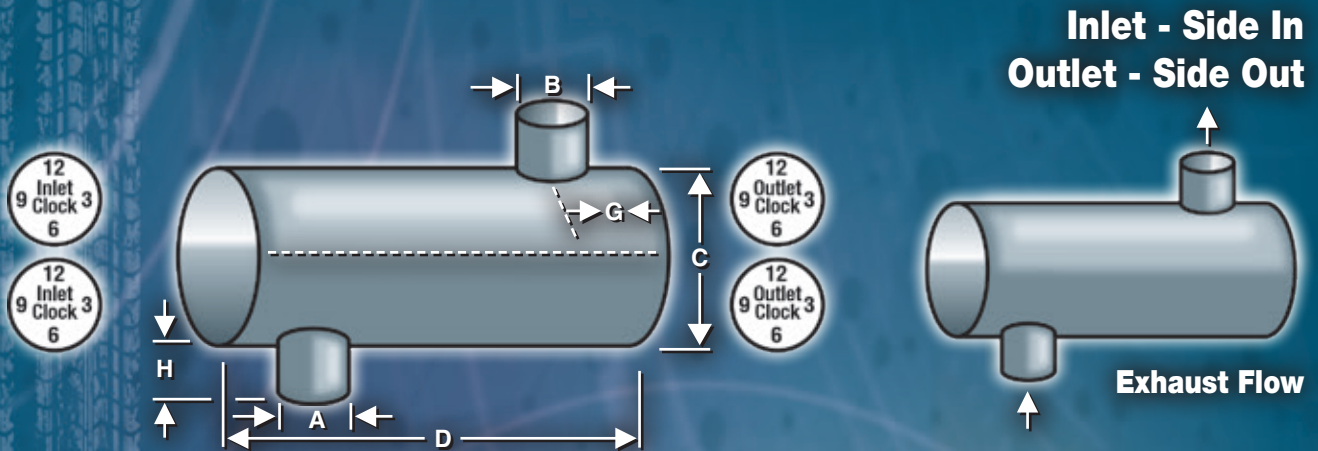
ALL DIMENSIONS ARE IN INCHES

MUFFLER SPECIFICATIONS

HEAVY DUTY

MANUFACTURING, INC.

MUFFLER DIMENSION BY TYPE AND INLET SIZE - Type 6



PART NUMBER	TYPE	A	B	C	D	E	F	G	H	I	J	K	CLOCK POSITION	
		INLET ID	OUTLET ID	BODY DIA.	BODY LENGTH	OVERALL LENGTH	INLET OFFSET	OUTLET OFFSET	INLET TUBE LOC.	INLET TUBE LENGTH	OUTLET TUBE LENGTH	OUTLET TUBE CENTER	INLET	OUTLET
31245	6	2.00	2.00	6.00	18.81	18.81	--	--	3.50	5.00	3.50	5.00	6:00	12:00
31246	6	2.50	2.50	6.62	20.81	20.81	--	--	3.50	6.00	3.50	6.00	6:00	12:00
31247	6	3.00	3.00	8.50	27.00	27.00	--	--	3.50	6.75	3.50	6.75	6:00	12:00
31248	6	3.50	3.50	8.25 x 11.5	26.00	26.00	--	--	3.38	7.00	3.38	7.00	6:00	12:00
31249	6	4.00	4.00	10.12	28.00	30.62	--	--	4.50	8.00	4.50	8.00	6:00	12:00
31481	6	4.00	4.00	11.09	36.00	36.18	--	--	4.25	8.64	17.25	8.64	12:00	10:00
31482	6	4.00	4.00 OD	11.09	36.00	36.18	--	--	4.25	8.64	13.50	9.50	12:00	2:00
31250	6	5.00	5.00	10.0 x 15.0	28.00	28.25	--	--	5.00	8.00	5.00	8.00	6:00	12:00

ALL DIMENSIONS ARE IN INCHES

MUFFLER CROSS REFERENCE

DONALDSON	GRAND ROCK	NELSON	SHUTTLEWORTH	WALKER	HEAVY DUTY	DONALDSON	GRAND ROCK	NELSON	SHUTTLEWORTH	WALKER	HEAVY DUTY
M100463	M-130	86130M	--	22924	31224	M100146	--	86563M	Q-260-13	--	31142
M100465	M-465	86682M	D13-0099	22920	31165	M090547	M-537	86537M	D13-0007	22604	31214
M090074	M-132	86132M	D13-5090	22940	31021	M110012	--	86500M	D13-2045	--	31230
M085171	M-127	86127M	D13-4060	21838	31096	M090594	--	86560M	D13-7637	--	31252
M090072	M-145	86145M	D16-0002	21835	31024	M120566	M-542	86542M	D13-2070	21161	31566
M090544	M-131	86131M	D13-0196	22936	31020	M090781	M-514	86740M	--	22941	30781
M090781	M-514	86514M	D13-4095	--	31514	M090158	M-106	86106M	D13-2041	22632	31026
M100695	M-130-4	86535M	D13-4015	22966	31045	M100049	--	86133M	--	--	31032
M120100	--	86125M	D13-2012	21174	31036	M090520	M-512	86512M	--	21832	31226
M120108	M-147	86147M	D13-2025	22552	31037	M060249	--	--	--	--	31235
M090362	M-144	86144M	D16-0001	21464	31109	M085026	--	--	--	--	31237
M100466	M-444	86544M	--	22916	31164	M090596	--	--	--	--	31238
M909280	M-153	86153M	D13-6040	22004	31123	M120417	--	--	Q-172-10	--	31240
M100213	M-526	86526M	D13-5550	22915	31150	M065073	--	--	--	--	31242
M120382	M-149	83149M	--	21971	31202	M085027	--	--	--	--	31243
M065065	--	86137M	D12-2240	--	31004	M060251	--	--	--	--	31245
M085008	--	86134M	--	--	31018	M065074	--	--	--	--	31246
M090146	--	86113M	D13-3590	--	31025	M100572	--	--	--	--	31249
M070028	M-150	86150M	D16-0005	21467	31085	M090594	--	86560M	D13-7637	--	31252
M090595	--	--	D13-0123	--	31253	M090595	M-595	--	D13-0123	22771	31253
M085080	--	86119M	--	--	31019	M090158	M-536	86536M	D13-6295	22551	31680
M085023	M-139	86139M	D12-3430	21476	31015	M045237	--	86177M	--	--	31074
M090535	--	86102M	--	--	31023	M045239	--	--	--	--	31254
M100048	--	86168M	--	--	31031	M060055	--	--	--	--	31082
M120365	M-117	86117M	--	22833	31035	M060187	--	--	--	--	31003
M100463	--	86170M	--	--	31063	M065044	--	--	--	--	31081
M085090	--	86192M	D99-0201	--	31102	M065071	--	86178M	--	--	31076
M085056	--	--	--	21475	31104	M070185	--	86164M	--	--	31001
M090538	--	86213M	--	--	31127	--	--	86108M	--	--	31022
--	--	86597M	--	--	31133	M060212	--	86142M	D12-2304	--	31219
M090301	--	86193M	--	--	31136	M060232	--	86136M	--	--	31002
M100052	--	86151M	D13-4023	--	31139	M090563	--	86185M	--	--	31226

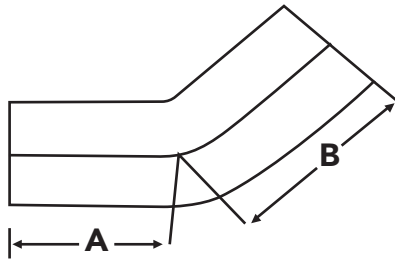
HEAVY DUTY

MANUFACTURING, INC.

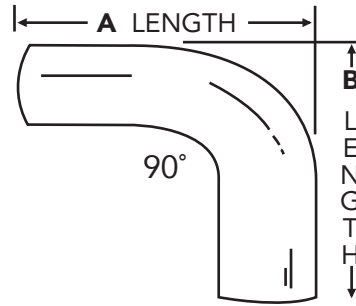
CUSTOM PARTS

heavydutymfg.com
800-241-0551

CUSTOM ELBOWS



Measure to center line

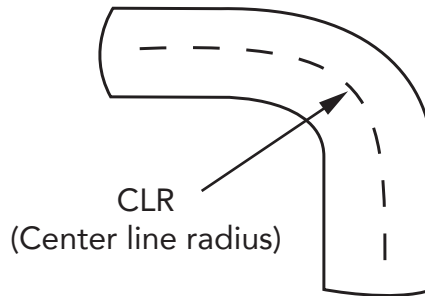


Measure to backside

BENDING CAPABILITY

MANDREL BENDING

DIAMETER	CENTER LINE RADIUS
3"	3.5"
3.5"	5"
4"	4.5"
5"	5.5", 6", 7.5", 10"
6"	7", 10"
7"	8"
8"	12"



ORDER/QUOTE FORM PLEASE FILL OUT COMPLETELY

Name _____ Quantity _____

Company _____ Diameter _____

HDM Acct. # _____ Degree of Bend _____

Address _____ **A** Dimension _____

Email _____ **B** Dimension _____

Fax # _____ **A** or **B** Expanded (I.D.) _____

Phone# _____ Aluminized Chrome Plain SS

Quotes are good for 30 days. All Custom Parts Sales are FINAL with NO returns.

Lead times including estimated processing and shipping time will be provided once the quote process has been completed.

An OEM or competitor part number, or picture of the part (if available) will speed up the quote process.

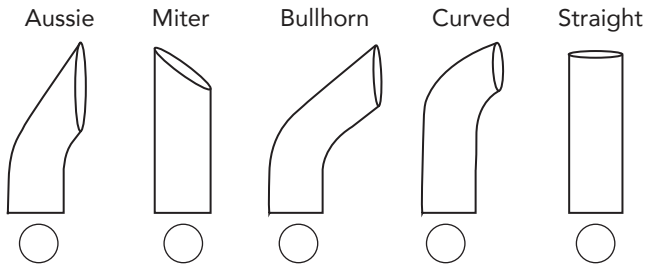
Please FAX or Email for specs to FAX: 770.806.8801 Email: Orders@Heavydutymfg.com

CUSTOM STACKS

Choose your diameter:

- 3"
 3.5"
 4"
 5"
 6"
 7"
 8"

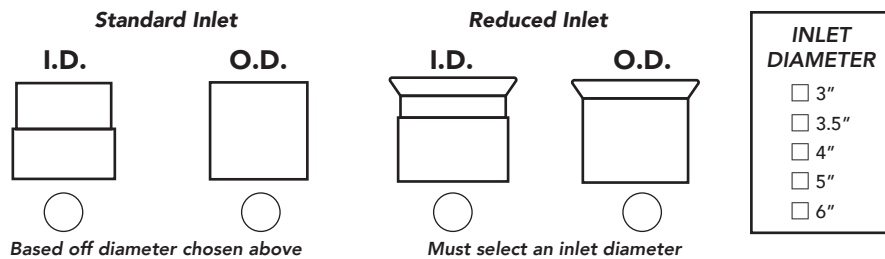
Choose your style:



Choose your Overall Length:

- 12" 18" 24" 36" 48" 60"
- 72" 84" 96" 108" 144"
- 120" OTHER _____

Choose your inlet:



Choose your finish:

- Raw/Cold Rolled
 Aluminized
 Chrome

CONTACT INFORMATION PLEASE FILL OUT COMPLETELY

Name _____ Email _____
 Company _____ Fax # _____
 HDM Acct. # _____ Phone# _____
 Address _____ **QUANTITY** _____

Quotes are good for 30 days.

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Please FAX or Email for specs to:

FAX: 770.806.8801 Email: Orders@Heavydutymfg.com

OEM REPLACEMENT PARTS

CONTACT INFORMATION PLEASE FILL OUT COMPLETELY

Name _____ Email _____
 Company _____ Fax # _____
 Location _____ Phone# _____
 HDM Acct. # _____ Address _____

TRUCK INFORMATION SECTION

Truck Make	Truck Class	Engine Size	Truck Model	OEM Part Number(s)
<input type="checkbox"/> Freightliner	<input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8	_____	_____	_____
<input type="checkbox"/> International	<input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8	_____	_____	_____
<input type="checkbox"/> Kenworth	<input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8	_____	_____	_____
<input type="checkbox"/> Mack	<input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8	_____	_____	_____
<input type="checkbox"/> Peterbilt	<input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8	_____	_____	_____
<input type="checkbox"/> Sterling	<input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8	_____	_____	_____
<input type="checkbox"/> Volvo	<input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8	_____	_____	_____
<input type="checkbox"/> Western Star	<input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8	_____	_____	_____
<input type="checkbox"/> Other _____	<input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8	_____	_____	_____

Quotes are good for 30 days.

All Custom Parts Sales are FINAL with NO returns.

Lead times including estimated processing and shipping time will be provided once the quote process has been completed.

An OEM or competitor part number, or picture of the part (if available) will speed up the quote process.

Please FAX or Email for specs to:

FAX: 770.806.8801 Email: Orders@Heavydutyvmfg.com

ENGINE INFORMATION SECTION

Engine Manufacturer

- | | |
|---|-----------------------------------|
| <input type="checkbox"/> Caterpillar | <input type="checkbox"/> Mercedes |
| <input type="checkbox"/> Cummins | <input type="checkbox"/> PACCAR |
| <input type="checkbox"/> Detroit Diesel | <input type="checkbox"/> Volvo |

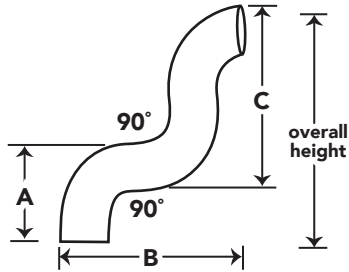
NOTES

PLEASE SUPPLY A COMPLETE PARTS LIST AND DRAWINGS RELEVANT TO THE ABOVE

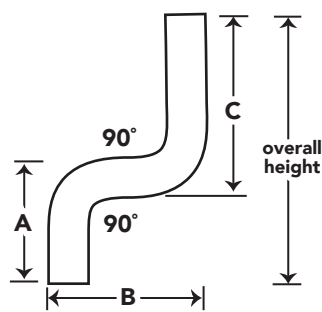
CUSTOM DUMP TRUCK STACKS

CUSTOM MADE TO YOUR SPECS

Style 1*



Style 2*

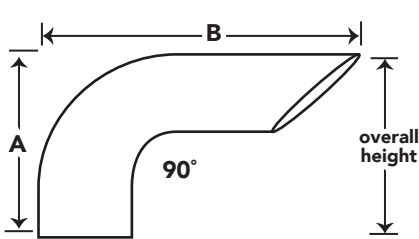


***MINIMUM DIMENSIONS
Style 1 and Style 2**

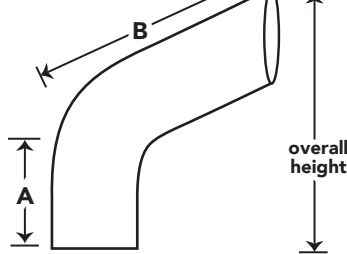
	4" DIA.	5" DIA
A	9"	10.5"
B	12"	16"
C	12"	16"

with straight or angle cut top

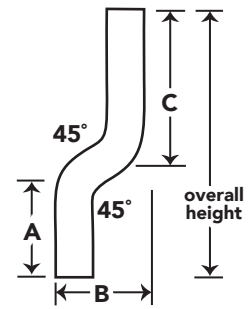
Style 3



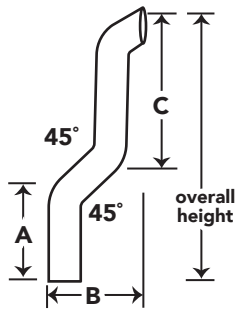
Style 4



Style 5



Style 6



Quotes are good for 30 days.
All Custom Parts Sales are FINAL with NO returns.

Lead times including estimated processing and shipping time will be provided once the quote process has been completed.

An OEM or competitor part number, or picture of the part (if available) will speed up the quote process.

Please FAX or Email for specs to
FAX: 770.806.8801 Email: Orders@Heavydutyvmfg.com

ORDER/QUOTE FORM PLEASE FILL OUT COMPLETELY

Quantity _____ Name _____

Diameter _____ Company _____

Style 1 Style 2 Style 3 Style 4 Style 5 Style 6 HDM Acct. # _____

Expanded (ID) or Straight (OD) Bottom Address _____

A Dimension _____ Email _____

B Dimension _____ Fax # _____

C Dimension _____ Phone# _____

Plain Aluminized Chrome

HEAVY DUTY

MANUFACTURING, INC.

PART NUMBER INDEX

HEAVY DUTY

MANUFACTURING, INC.

PART NUMBER INDEX

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30077	5.1	31021	5.1	31038	5.1	31086	5.9	31142	5.14
30077	5.12	31021	5.8	31038	5.9	31096	5.2	31142	5.18
30087	5.1	31021	5.10	31043	5.1	31096	5.8	31143	5.2
30087	5.9	31021	5.18	31043	5.11	31096	5.9	31143	5.10
30183	5.1	31022	5.1	31045	5.1	31096	5.18	31150	5.2
30183	5.10	31022	5.9	31045	5.8	31102	5.2	31150	5.14
30186	5.1	31022	5.18	31045	5.10	31102	5.14	31150	5.18
30186	5.15	31023	5.1	31045	5.18	31102	5.18	31162	2.17
30280	5.1	31023	5.10	31063	5.2	31104	5.2	31162	5.2
30280	5.14	31023	5.18	31063	5.10	31104	5.11	31162	5.10
30781	5.1	31024	5.1	31063	5.18	31104	5.18	31163	5.2
30781	5.10	31024	5.7	31074	5.2	31109	5.2	31163	5.10
30781	5.18	31024	5.8	31074	5.9	31109	5.7	31164	5.2
31001	5.1	31024	5.18	31074	5.18	31109	5.9	31164	5.9
31001	5.11	31025	5.1	31075	5.2	31109	5.18	31164	5.18
31001	5.18	31025	5.9	31075	5.14	31112	5.2	31165	5.2
31002	5.1	31025	5.18	31076	5.2	31112	5.9	31165	5.8
31002	5.11	31026	5.1	31076	5.9	31119	5.2	31165	5.10
31002	5.18	31026	5.11	31076	5.18	31119	5.9	31165	5.18
31003	5.1	31026	5.18	31077	5.2	31123	5.2	31165ST	5.3
31003	5.11	31028	5.1	31077	5.9	31123	5.12	31165ST	5.10
31003	5.18	31028	5.12	31078	5.2	31123	5.18	31166	5.3
31004	5.1	31031	5.1	31078	5.11	31125	5.2	31166	5.9
31004	5.11	31031	5.11	31080	5.2	31125	5.11	31173	5.3
31008	5.1	31031	5.18	31080	5.14	31126	5.2	31173	5.15
31008	5.11	31032	5.1	31081	5.2	31126	5.11	31181	5.3
31015	5.1	31032	5.16	31081	5.14	31127	5.2	31181	5.16
31015	5.11	31032	5.18	31081	5.18	31127	5.11	31186	5.3
31015	5.18	31034	5.1	31082	5.2	31127	5.18	31186	5.15
31018	5.1	31034	5.11	31082	5.11	31133	5.2	31189	5.3
31018	5.11	31035	5.1	31082	5.18	31133	5.15	31189	5.12
31018	5.18	31035	5.12	31083	5.2	31133	5.18	31191	5.3
31019	5.1	31035	5.18	31083	5.14	31136	5.2	31191	5.14
31019	5.11	31036	5.1	31084	5.2	31136	5.14	31197	5.3
31019	5.18	31036	5.11	31084	5.9	31136	5.18	31197	5.12
31020	5.1	31036	5.18	31085	5.2	31139	5.2	31199	5.3
31020	5.8	31037	5.1	31085	5.9	31139	5.15	31199	5.12

HEAVY DUTY

MANUFACTURING, INC.

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31202	5.3	31231	5.15	31249	5.18	31580	5.4	HD-225	5.7
31202	5.14	31232	5.3	31250	5.4	31580	5.10	HD-250	5.5
31202	5.18	31232	5.15	31250	5.17	31582	5.4	HD-250	5.7
31204	5.3	31233	5.3	31251	5.4	31582	5.10	HD-300	5.5
31204	5.12	31233	5.15	31251	5.9	31584	5.4	HD-300	5.7
31209	5.3	31234	5.3	31252	5.4	31584	5.14	HD-300-39	5.5
31209	5.12	31234	5.12	31252	5.9	31680	5.4	HD-300-39	5.7
31211	5.3	31235	5.3	31252	5.18	31680	5.11	HD-350	5.5
31211	5.12	31235	5.15	31253	5.4	31680	5.18	HD-350	5.7
31212	5.3	31235	5.18	31253	5.10	31808	5.5	HD-400	5.5
31212	5.13	31237	5.3	31253	5.18	31808	5.14	HD-400	5.7
31214	5.3	31237	5.15	31254	5.4	31824	2.17	HD-414	5.5
31214	5.15	31237	5.18	31254	5.14	31824	5.5	HD-414	5.7
31214	5.18	31238	5.4	31254	5.18	31824	5.10	HD-416	5.5
31215	5.3	31238	5.15	31267S	5.4	32011	5.5	HD-416	5.7
31215	5.15	31238	5.18	31267S	5.13	32011	5.16	HD-501	5.5
31217	5.3	31240	5.4	31293	5.4	32075	5.5	HD-501	5.7
31217	5.15	31240	5.15	31293	5.9	32075	5.10	SA-300	5.5
31218	5.3	31240	5.18	31308S	5.4	32076	5.5	SA-300	5.6
31218	5.15	31241	5.4	31308S	5.13	32076	5.15	SA-350	5.5
31219	5.3	31241	5.16	31367	5.4	33260	5.5	SA-350	5.6
31219	5.11	31242	5.4	31367	5.15	33260	5.13	SA-400	5.5
31219	5.18	31242	5.16	31391	5.4	34023	5.5	SA-400	5.6
31223	5.3	31242	5.18	31391	5.10	34023	5.15	SA-500	5.5
31223	5.13	31243	5.4	31479	5.4	34025	5.5	SA-500	5.6
31224	5.3	31243	5.16	31479	5.14	34025	5.12	1-300-18	1.1
31224	5.10	31243	5.18	31480	5.4	34525	5.5	1-300-18A	1.1
31224	5.18	31245	5.4	31480	5.14	34525	5.9	1-300-18CP	1.1
31225	5.3	31245	5.17	31481	5.4	35210	5.5	1-300-24	1.1
31225	5.12	31245	5.18	31481	5.17	35210	5.16	1-300-24A	1.1
31226	5.3	31246	5.4	31482	5.4	37633	5.5	1-300-24CP	1.1
31226	5.13	31246	5.17	31482	5.17	37633	5.15	1-300-36	1.1
31226	5.18	31246	5.18	31514	5.4	37727	5.5	1-300-36A	1.1
31227	5.3	31247	5.4	31514	5.8	37727	5.14	1-300-36CP	1.1
31227	5.11	31247	5.17	31514	5.10	37733	5.5	1-300-48	1.1
31230	5.3	31248	5.4	31514	5.18	37733	5.14	1-300-48A	1.1
31230	5.11	31248	5.17	31566	5.4	9XD-606	5.5	1-300-48CP	1.1

HEAVY DUTY

MANUFACTURING, INC.

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HEAVY DUTY

MANUFACTURING, INC.

EXHAUST CATALOG

**QUALITY EXHAUST COMPONENTS
FOR THE
HEAVY DUTY TRUCK INDUSTRY**

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