

ACCESSORY CATALOG



YOUR EXHAUST SYSTEM COMPONENTS SOLUTION



For products not included in the catalog, please contact us for a quote.

Rev030421-B



Manufacturer of the Year



ISO 9001:2015 Certified

inExhaust has over 50 years' combined experience in exhaust system manufacturing, power generation, emissions, and the oil and gas industries. Innovative Exhaust Solutions, Inc was established in 2016 by Juan Breucop and Mike Rodriguez.

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All dimensions are in inches. All weights are approximate and in pounds.

*Special items are not refundable. All catalog items are standard sizing. Call factory for pricing on non-standard items.
Contents subject to change without notice. Minimum order amount \$50.*

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First set of numbers: Family
 (See chart below)

Third set of numbers:
 Length/Height (if applicable)
 Will always have an L and/or H.

Fifth set of numbers:
 Material (if applicable)

23-050x100-L16H24-9060-S304

Second set of numbers:
 Nominal Size 1/Nominal Size 2 (if applicable)
 Will include an "x" if there are both.

Fourth set of numbers:
 Inlet/Outlet Connection (if applicable)

FAMILY NUMBER	DESCRIPTION
10	Tubing
11-12	Outlet Extensions
13	Cones
20-22	Flex
23-24	Bellows
30-31, 31M, 32-39	Elbows
40-45	Tube Fittings
50-52	Wye Connectors
60-63, 70, 73, 75	Flanges
68	Explosion Relief Cover Kits
76	Gaskets
77	NBG Kits
80-81	Thimbles
82-83	Rain Guards
84, 84HD	Rain Caps (Standard & Heavy-Duty)
85	Brackets
86-89	Clamps

CONNECTIONS	DESCRIPTION
40	Slotted ID Cuff
60	ANSI Pattern
61	Caterpillar
62	Cummins
63	MTU
70	ANSI Reducing/Increasing
73	Flared Flange
75	Stack Breaker Flange
90	Female Half Coupling
91	Male NPT

ABBREVIATIONS	
L/OAL	Length/Overall Length
H/OAH	Height/Overall Height
R	Radius
NS	Nominal Size
WT	Weight
BHC	Bolt Hole Center
DIA	Diameter
ID/OD	Inside Diameter/Outside Diameter

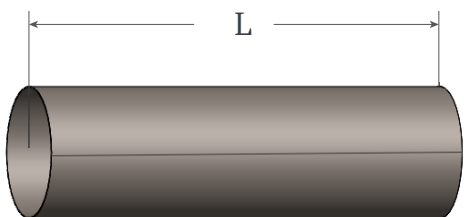


Seamless Tubing



PART NUMBER	OD/NS	L	GAUGE	WT
10-020-L12	2	12	16GA	1.3
10-025-L12	2.5	12	16GA	1.7
10-030-L12	3	12	16GA	2.0
10-035-L12	3.5	12	16GA	2.4
10-040-L12	4	12	16GA	2.7
10-050-L12	5	12	16GA	3.4
10-060-L12	6	12	14GA	5.0

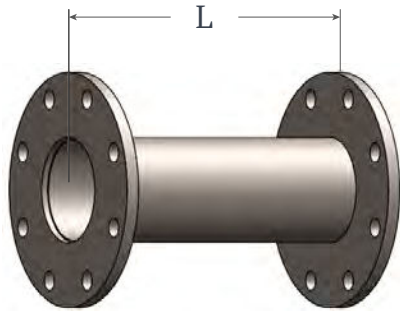
Rolled & Welded Tubing



PART NUMBER	OD/NS	L	GAUGE	WT
10-080-L12	8	12	12GA	9.0
10-100-L12	10	12	12GA	14.3
10-120-L12	12	12	12GA	15.0
10-140-L12	14	12	12GA	16.2
10-160-L12	16	12	12GA	18.5
10-180-L12	18	12	10GA	26.4
10-200-L12	20	12	10GA	29.4
10-220-L12	22	12	10GA	32.3
10-240-L12	24	12	10GA	35.2
10-260-L12	26	12	10GA	38.2
10-280-L12	28	12	10GA	41.0
10-300-L12	30	12	10GA	44.0

ASSEMBLED TUBING

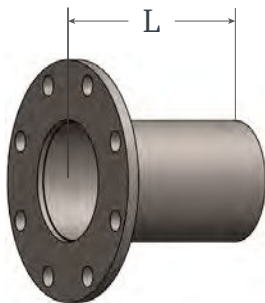
ANSI Pattern Flange Both Ends



*For other Flange Patterns, replace 60 with new connection numbers. See schema on page 4.

PART NUMBER	NS	L	WT
11-040-L12-6060	4	12	17
11-050-L15-6060	5	15	20
11-060-L18-6060	6	18	26
11-080-L18-6060	8	18	40
11-100-L20-6060	10	20	52
11-120-L24-6060	12	24	73
11-140-L28-6060	14	28	88
11-160-L32-6060	16	32	108
11-180-L36-6060	18	36	138
11-200-L40-6060	20	40	166
11-220-L48-6060	22	48	202
11-240-L48-6060	24	48	226
11-260-L48-6060	26	48	247
11-280-L48-6060	28	48	267
11-300-L48-6060	30	48	292

ANSI Pattern Flange One End/Plain One End

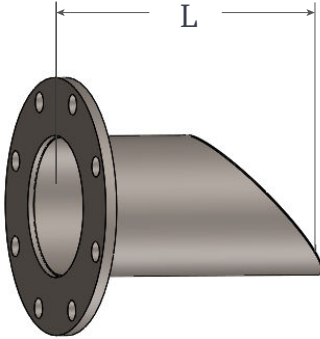


*For other Flange Patterns, replace 60 with new connection numbers. See schema on page 4.

PART NUMBER	NS	L	WT
11-040-L12-60	4	12	11
11-050-L15-60	5	15	13
11-060-L18-60	6	18	18
11-080-L18-60	8	18	27
11-100-L20-60	10	20	36
11-120-L24-60	12	24	51
11-140-L28-60	14	28	63
11-160-L32-60	16	32	79
11-180-L36-60	18	36	107
11-200-L40-60	20	40	132
11-220-L48-60	22	48	165
11-240-L48-60	24	48	183
11-260-L48-60	26	48	199
11-280-L48-60	28	48	215
11-300-L48-60	30	48	232

ASSEMBLED TUBING

ANSI Pattern Flange One End/45° Cut With Bird Screen One End



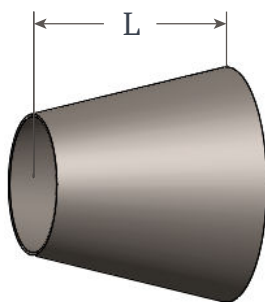
*For other Flange Patterns, replace 60 with new connection numbers. See schema on page 4.

PART NUMBER	NS	L	WT
12-040-L12-6097	4	12	12
12-050-L15-6097	5	15	14
12-060-L18-6097	6	18	18
12-080-L18-6097	8	18	27
12-100-L20-6097	10	20	34
12-120-L24-6097	12	24	49
12-140-L28-6097	14	28	60
12-160-L32-6097	16	32	76
12-180-L36-6097	18	36	90
12-200-L40-6097	20	40	109
12-220-L44-6097	22	44	141
12-240-L48-6097	24	48	150
12-260-L48-6097	26	48	160
12-280-L48-6097	28	48	170
12-300-L48-6097	30	48	180



**Example of a custom
Outlet Extension**

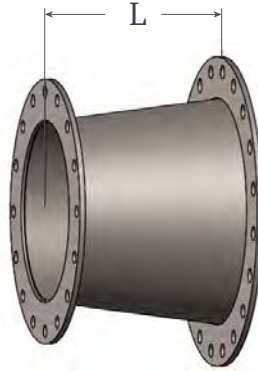
CONCENTRIC EXPANSION CONNECTORS



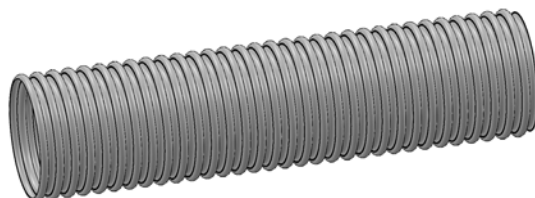
Plain Both Ends				
PART NUMBER	OD INLET	OD OUTLET	L LENGTH	WEIGHT
13-0608-L9.5	6	8	9.5	6.5
13-0610-L11.5	6	10	11.5	9.0
13-0810-L11.5	8	10	11.5	10.0
13-0812-L11.5	8	12	11.5	11.0
13-1012-L11.5	10	12	11.5	12.0
13-1014-L11.5	10	14	11.5	13.5
13-1214-L11.5	12	14	11.5	14.5
13-1216-L11.5	12	16	11.5	15.5
13-1416-L13.5	14	16	13.5	19.0
13-1418-L13.5	14	18	13.5	26.5
13-1618-L15.5	16	18	15.5	31.6
13-1620-L15.5	16	20	15.5	34.0
13-1820-L15.5	18	20	15.5	35.5
13-1822-L15.5	18	22	15.5	38.0
13-2022-L15.5	20	22	15.5	39.0
13-2024-L15.5	20	24	15.5	41.5
13-2224-L15.5	22	24	15.5	43.0
13-2226-L15.5	22	26	15.5	45.5



CONCENTRIC EXPANSION CONNECTORS



ANSI Pattern Flange Both Ends				
PART NUMBER	OD INLET	OD OUTLET	L LENGTH	WEIGHT
13-0608-L10-6060	6	8	10	28
13-0610-L12-6060	6	10	12	34
13-0810-L12-6060	8	10	12	38
13-0812-L12-6060	8	12	12	47
13-1012-L12-6060	10	12	12	52
13-1014-L12-6060	10	14	12	55
13-1214-L12-6060	12	14	12	63
13-1216-L12-6060	12	16	12	69
13-1416-L14-6060	14	16	14	75
13-1418-L14-6060	14	18	14	82
13-1618-L16-6060	16	18	16	93
13-1620-L16-6060	16	20	16	94
13-1820-L16-6060	18	20	16	101
13-1822-L16-6060	18	22	16	106
13-2022-L16-6060	20	22	16	113
13-2024-L16-6060	20	24	16	122
13-2224-L16-6060	22	24	16	126
13-2226-L16-6060	22	26	16	133



Specifications for Corrugated Flex Hose

NOMINAL HOSE ID (INCHES)	NOMINAL HOSE OD (INCHES)	MAX LATERAL OFFSET/FOOT	MAX AXIAL MOVEMENT/FOOT	MAX OPERATING TEMPERATURE
2	2.75	0.96	0.14	1500°
2.5	3.17	0.82	0.22	1500°
3	3.75	0.74	0.22	1500°
4	4.82	0.62	0.22	1500°
5	5.87	0.47	0.22	1500°
6	6.94	0.42	0.22	1500°
8	9.00	0.30	0.22	1500°
10	11.3	0.20	0.22	1500°
12	13.0	0.17	0.22	1500°

Read through the entire manual before proceeding with installation.

Any procedures presented in this guide are suggestions only, and it is the responsibility of the owner/operator to ensure that the installation is done only by trained, qualified individuals, and performed according to all applicable codes including, but not limited to, local codes for your municipality, city, county and state; this includes all electrical and mechanical work. All workers must be trained in the proper safety procedures and appropriate PPE and attire must be worn at all times.

Note: Flex connectors are not designed to compensate for misalignment or vibration isolation. Proper spring and dampers should be used as engine/genset and silencer mounts.

PRE-INSTALLATION

- Prior to unpacking, check all components for shipping damage.
- Keep the shipping container to protect the unit until installation is complete.
- Verify the correct parts are received by comparing the nameplate with the packing list.
- Locate nameplate and note direction (if applicable).
- Verify that the flex connector and recommended gaskets are of proper size for the mating surface openings and ensure that all mating surfaces are clean and free of foreign material before installation.
- When cleaning the surfaces, do not use abrasive materials such as steel wool or wire brushes. Use only isopropyl alcohol and clean with soft rags (Do not use chloride or halide-based cleaners).
- Exhaust system components inside the enclosure may need to be covered with suitable insulation to protect personnel and reduce room temperature (Removable Thermal Insulation Covers, aka Thermal Wrap, available from inExhaust™).
- Observe all OSHA mandated regulations for the safe rigging of exhaust equipment.
- Do not use any lifting device directly on the flex hose or flex hose cover.
- Prior to welding or other potentially damaging work, protect the flex element.
- If flange connections are used, flanged faces must be parallel with each other and mating surfaces must also be parallel.
- Don't pre-stretch or compress flex at time of installation. The flex connector must be relaxed at time of install.

INSTALLATION

Flanged Connections:

1. Place the flange of the connector (floating flange, if used) over the exhaust outlet of the engine, with the gasket between the two facing surfaces and bolt holes properly aligned, so that the axial lines of the connector and mating orifice are concentrically aligned.
2. Secure the flange over the mating face of the outlet using appropriate Nut-Bolt-Gasket (NBG) kit, to aid in maintaining joint tightness over time. Higher grade fasteners may loosen as the system cycles or settles, which can potentially cause failure. Do not use spring lock washers, as operating temperatures and pressures will cause them to degrade or disintegrate. Apply high temperature anti-seize to bolts – Loctite® 34517 or equivalent is suggested (not included or supplied by inExhaust). Maintain regular maintenance records and check bolt torque and material integrity to avoid leaks.
3. Secure the opposite flange of the connector to the mating face of the receiving system, with the gasket between the two facing surfaces and bolt holes properly mated. Use the same grade of fasteners as previously described, ensuring that the axial lines of the engine outlet, connector, and mating orifice remain concentrically aligned.

CONTINUED

Caution:

- a) To avoid potential failure, do not handle or install this product in a manner or position such that torquing, or twisting can occur along it's axial line. The installation must be pre-aligned so that bolts for all mating surfaces can drop into place with no force, offsetting, bending, twisting or other form of distortion. Do not force-rotate one end of the expansion joint for alignment of the bolt holes.
 - b) Pre-loading flange connections due to misalignment will result in premature failure and will void the warranty.
 - c) The installation must produce no downward force or loads exerted on the engine exhaust outlet.
4. To ensure uniform flange pressure for flanged connections, tighten bolts in a star shaped pattern until all are snug.
 5. Following the same star-shaped pattern, torque the bolts to the specified torque. Never torque bolts directly to the left or right of the previously torqued bolt.
 - a) Torque only after all nuts and bolts are hand tight.

Cuffed Connections:

1. Ensure the clamp is loosely attached to either the cuff or the exhaust piping prior to fitting the exhaust piping to the cuff.
 2. Insert the exhaust piping securely into the cuffed portion of the connection, ensuring that the exhaust piping is uniformly bottomed out.
 3. Position the clamp towards the edge of the cuff, allowing a min. of 0.5" from the edge of the clamp to the edge of the pipe.
 4. Torque the clamp bolts until tight. Re-check tightness prior to and after initial engine start and system commissioning. Maintain regular maintenance records and check bolt torque and material integrity to avoid leaks.
- Ensure that the installation complies with maximum allowable lateral offset and axial movement in inches per foot as specified in Technical Specification Table.
 - This product is rated at 5 PSIG (0.34bar). Hydrostatic test pressure shall not exceed 1.5 times the rated pressure.
 - For maximum durability, allow the flex connector to operate as closely as possible to a free state.

POST-INSTALLATION

- Review that all components of your exhaust system are properly installed and ready for operation.
- If there is any indication of leaks or damage, cease operation immediately and conduct a broader inspection to determine the cause and resolve.
- After the initial engine run and cool down, re-check all bolts for tightness and torque as required.
- Exhaust back-pressure must not exceed the allowable back-pressure specified by the engine manufacturer. Excessive exhaust back-pressure reduces engine power and engine life and may lead to high exhaust temperatures and smoke. Engine exhaust back-pressure should be estimated before the layout of the exhaust system is finalized and is recommended to be measured at the exhaust outlet under full-load operation, as needed.



CONTINUED

- Verify that the type and amount of movement generated by the system are identical with movements the expansion joint is designed for.

MAINTENANCE

It is recommended that maintenance is performed monthly, or every 10 hours of operation, (whichever comes first).

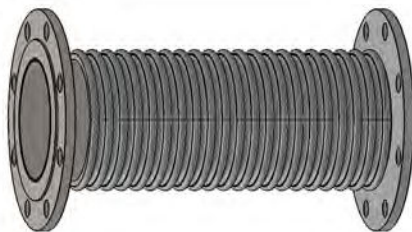
Maintenance for a typical exhaust system installation will consist of physical and visual examination of the exhaust system for any sign of gas leakage, cracks, significant areas of damage or corrosion. Re-tighten any loose bolts if necessary.

Note: If there is any indication of leaks or damage, cease operation immediately and conduct a broader inspection to determine the cause and resolve.

Thank you for choosing inExhaust as your exhaust system components solution!
For any questions, please contact us at sales@inExhaust.com.

inExhaust™ reserves the right to change the contents without notice. We do make every effort to have the most recent documents on our website. For latest revision please contact inExhaust™.

This guide is also available on our website: www.inExhaust.com



**Example of a Flex
Connector with Flanges
on Both Ends**

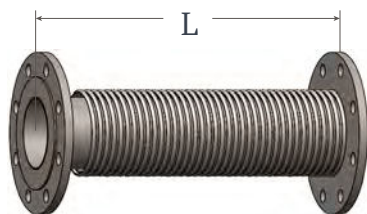
CORRUGATED FLEX CONNECTORS

Corrugated Flex Hose – 321 Stainless Steel



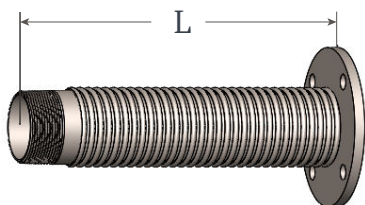
PART NUMBER	NS	OD	L	WEIGHT
20-020-L12	2	2.75	12	0.90
20-025-L12	2.5	3.17	12	1.16
20-030-L12	3	3.75	12	1.21
20-035-L12	3.5	4.38	12	1.62
20-040-L12	4	4.82	12	1.69
20-050-L12	5	5.87	12	2.50
20-060-L12	6	6.94	12	3.47
20-080-L12	8	9.00	12	5.56
20-100-L12	10	11.00	12	6.80
20-120-L12	12	13.00	12	9.02

Floating ANSI Pattern Flange One End/Fixed ANSI Pattern Flange One End



PART NUMBER	NS	L	WEIGHT
21-035-L18-60F60	3.5	18	17
21-040-L18-60F60	4	18	18
21-050-L18-60F60	5	18	21
21-060-L18-60F60	6	18	24
21-080-L18-60F60	8	18	34
21-100-L18-60F60	10	18	45
21-120-L18-60F60	12	18	63

Male NPT One End/ANSI Pattern Flange One End



PART NUMBER	NS	L	WEIGHT
21-020-L18-9160	2	18	6
21-025-L18-9160	2.5	18	8
21-030-L18-9160	3	18	10
21-035-L18-9160	3.5	18	11
21-040-L18-9160	4	18	12
21-050-L18-9160	5	18	16
21-060-L18-9160	6	18	20

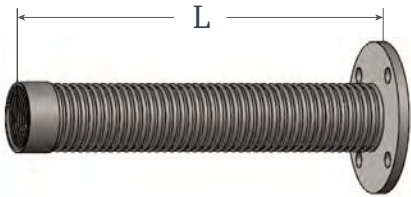
CORRUGATED FLEX CONNECTORS

Male NPT Both Ends



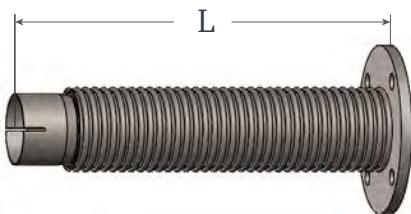
PART NUMBER	NS	L	WEIGHT
21-020-L18-9191	2	18	4
21-025-L18-9191	2.5	18	5
21-030-L18-9191	3	18	8
21-035-L18-9191	3.5	18	9
21-040-L18-9191	4	18	10
21-050-L18-9191	5	18	14
21-060-L18-9191	6	18	18

Female NPT One End/ANSI Pattern Flange One End



PART NUMBER	NS	L	WEIGHT
21-020-L18-9060	2	18	6
21-025-L18-9060	2.5	18	8
21-030-L18-9060	3	18	9
21-035-L18-9060	3.5	18	11
21-040-L18-9060	4	18	12

Slotted ID Cuff One End/ANSI Pattern Flange One End



PART NUMBER	NS	L	WEIGHT
21-020-L18-4060	2	18	6
21-025-L18-4060	2.5	18	8
21-030-L18-4060	3	18	9
21-035-L18-4060	3.5	18	10
21-040-L18-4060	4	18	11
21-050-L18-4060	5	18	12
21-060-L18-4060	6	18	15
21-080-L18-4060	8	18	20

CORRUGATED FLEX CONNECTORS

Slotted ID Cuff One End/Male NPT One End



PART NUMBER	NS	L	WEIGHT
21-020-L18-4091	2	18	3
21-025-L18-4091	2.5	18	4
21-030-L18-4091	3	18	5
21-035-L18-4091	3.5	18	6
21-040-L18-4091	4	18	8
21-050-L18-4091	5	18	10
21-060-L18-4091	6	18	13

Slotted ID Cuff One End/Female NPT One End



PART NUMBER	NS	L	WEIGHT
21-020-L18-4090	2	18	2
21-025-L18-4090	2.5	18	3
21-030-L18-4090	3	18	4
21-035-L18-4090	3.5	18	5
21-040-L18-4090	4	18	6
21-050-L18-4090	5	18	8
21-060-L18-4090	6	18	9

Slotted ID Cuff Both Ends

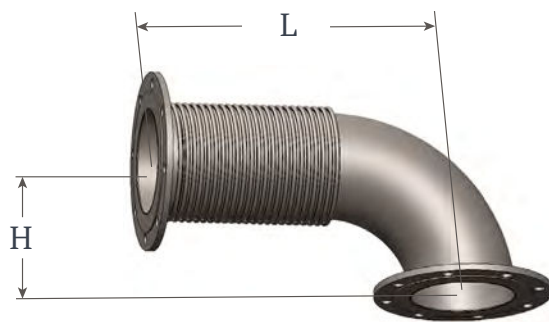


PART NUMBER	NS	L	WEIGHT
21-020-L18-4040	2	18	2
21-025-L18-4040	2.5	18	3
21-030-L18-4040	3	18	4
21-035-L18-4040	3.5	18	5
21-040-L18-4040	4	18	6
21-050-L18-4040	5	18	7
21-060-L18-4040	6	18	8
21-080-L18-4040	8	18	9
21-100-L18-4040	10	18	10

90° CORRUGATED FLEX CONNECTORS

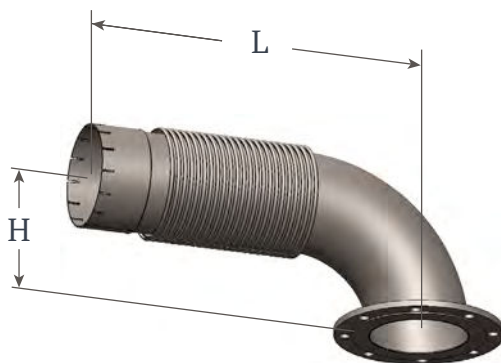
90° Elbow/Floating ANSI Pattern Flange Both Ends

PART NUMBER	NS	L	H	WEIGHT
22-060-L18H6.25-60F60F	6	18	6.25	27
22-080-L24H10-60F60F	8	24	10.00	45
22-100-L24H11-60F60F	10	24	11.00	55
22-120-L24H12-60F60F	12	24	12.00	80

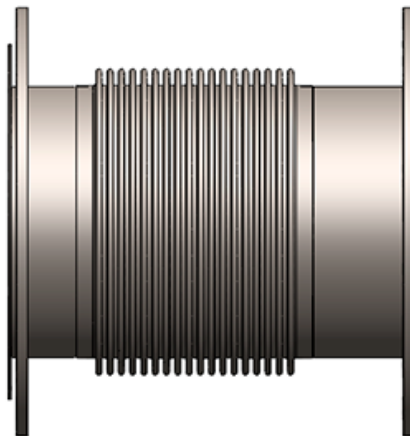


Floating ANSI Pattern Flange One End/90° Elbow/Slotted ID Cuff One End

PART NUMBER	NS	L	H	WEIGHT
22-040-L18H4.25-4060F	4	18	4.25	12
22-050-L19H5.75-4060F	5	19	5.75	15
22-060-L20H6.25-4060F	6	20	6.25	20



EXPANSION JOINTS - SINGLE-PLY



Specifications for Single Ply Bellows (Expansion Joints)

NOMINAL SIZE (INCHES)	PSIG	TEMP (°F)	AXIAL COMP	LATERAL OFFSET	AXIAL SPRING RATE LBS./IN	LATERAL SPRING RATE LBS./IN	FATIGUE (CYCLE)
3	5	1200°	2.0	0.50	156	53	10,000
4	5	1200°	2.0	0.50	111	51	10,000
5	5	1200°	2.0	0.50	202	133	10,000
6	5	1200°	2.0	0.50	239	213	10,000
8	5	1200°	2.0	0.50	317	488	10,000
10	5	1200°	2.0	0.25	322	854	10,000
12	5	1200°	2.0	0.25	385	1,428	10,000
14	5	1200°	2.0	0.25	308	1,448	10,000
16	5	1200°	2.0	0.25	351	2,114	10,000
18	5	1200°	2.0	0.25	393	2,958	10,000
20	5	1200°	2.0	0.25	436	3,996	10,000
22	5	1200°	2.0	0.25	478	5,255	10,000
24	5	1200°	2.0	0.25	520	6,753	10,000



Read through the entire manual before proceeding with installation.

Any procedures presented in this guide are suggestions only, and it is the responsibility of the owner/operator to ensure that the installation is done only by trained, qualified individuals, and performed according to all applicable codes including, but not limited to, local codes for your municipality, city, county and state; this includes all electrical and mechanical work. All workers must be trained in the proper safety procedures and appropriate PPE and attire must be worn at all times.

Note: Bellow connectors are not designed to compensate for misalignment or vibration isolation. Proper spring and dampers should be used as engine/genset and silencer mounts.

PRE-INSTALLATION

- Prior to unpacking, check all components for shipping damage.
- Keep shipping materials intact to protect the unit until installation is complete.
- Verify the correct parts are received by comparing the nameplate with the packing list.
- Locate nameplate and note direction (if applicable). Bellows with liners have a flow direction that will be noted.
- Verify that the bellows connector and recommended gaskets are of proper size for the mating surface openings and ensure that all mating surfaces are clean and free of foreign material before installation.
- When cleaning the surfaces, do not use abrasive materials such as steel wool or wire brushes. Use only isopropyl alcohol and clean with soft rags. (Do not use chloride or halide-based cleaners.)
- Exhaust system components inside the enclosure may need to be covered with suitable insulation to protect personnel and reduce room temperature. Use only chloride and halide free insulation. (Removable Thermal Insulation Covers, aka Thermal Wrap, available from inExhaust™)
- Observe all OSHA mandated regulations for the safe rigging of exhaust equipment.
- Do not use any lifting device directly on the bellows capsule or bellows capsule cover.
- Prior to welding or other potentially damaging work, protect the bellows capsule element.
- If flange connections are used, flanged faces must be parallel with each other and mating surfaces must also be parallel.
- Don't pre-stretch or compress bellows at time of installation. The bellows connector must be relaxed at time of install.

INSTALLATION

Flanged Connections:

1. Place the flange of the connector (floating flange, if applicable) over the exhaust outlet of the engine, with the gasket between the two facing surfaces and bolt holes properly aligned, so that the axial lines of the connector and mating orifice are concentrically aligned.
2. Secure the flange over the mating face of the outlet using appropriate Nut-Bolt-Gasket (NBG) kit, to aid in maintaining joint tightness over time. Higher grade fasteners will loosen as the system settles, causing failure. Do not use spring lock washers, as operating temperatures and pressures will cause them to degrade or disintegrate. Apply high temperature anti-seize to bolts – Loctite® 34517 or equivalent is suggested (not included or supplied by inExhaust).
3. Secure the opposite flange of the connector to the mating face of the receiving system, with the gasket

CONTINUED

between the two facing surfaces and bolt holes properly mated. Use the same grade of fasteners as previously described, ensuring that the axial lines of the engine outlet, connector, and mating orifice remain concentrically aligned.

Caution:

- a) To avoid potential failure, do not handle or install this product in a manner or position such that torqueing, or twisting can occur along its axial line. The installation must be pre-aligned so that bolts for all mating surfaces can drop into place with no force, offsetting, bending, twisting or other form of distortion. Bellows are not designed to absorb any torque or misalignment. Do not force-rotate one end of the expansion joint for alignment of the bolt holes.
- b) Pre-loading of flange connections due to misalignment will result in premature failure and will void the warranty.
- c) The installation must produce no downward force or loads exerted on the engine exhaust outlet.
4. To ensure uniform flange pressure for flanged connections, tighten bolts in a star shaped pattern until all are snug.
5. Following the same star-shaped pattern, torque the bolts to the specified torque. Never torque bolts directly to the left or right of the previously torqued bolt.
 - a) Torque only after all nuts and bolts are hand tight.

Cuffed Connections:

1. Ensure the clamp is loosely attached to either the cuff or the exhaust piping prior to fitting the exhaust piping to the cuff.
2. Insert the exhaust piping securely into the cuffed portion of the connection, ensuring that the exhaust piping is uniformly bottomed out.
3. Position the clamp towards the edge of the cuff, allowing a min. of 0.5" from the edge of the clamp to the edge of the pipe.
4. Torque the clamp bolts until tight. Re-check tightness prior to and after initial engine start and system commissioning.
 - This product is rated at 5 PSIG (0.34bar). Hydrostatic test pressure shall not exceed 1.5 times the rated pressure.
 - For maximum durability, allow the Bellows to operate as closely as possible to a free state.

POST-INSTALLATION

- Review that all components of your exhaust system are properly installed and ready for operation.
- If there is any indication of leaks or damage, cease operation immediately and conduct a broader inspection to determine the cause and resolve.
- After the initial engine run and cool down, re-check all bolts for tightness and torque as required.
- Exhaust back-pressure must not exceed the allowable back-pressure specified by the engine manufacturer. Excessive exhaust back-pressure reduces engine power and engine life and may lead to high exhaust temperatures and smoke. Engine exhaust back-pressure should be estimated before the layout of the exhaust system is finalized and is recommended to be measured at the exhaust outlet under full-load operation, as needed.
- Verify that the type and amount of movement generated by the system are identical with movements the expansion joint is designed for.



CONTINUED

MAINTENANCE

It is recommended that maintenance is performed monthly, or every 10 hours of operation, (whichever comes first).

Maintenance for a typical exhaust system installation will consist of physical and visual examination of the exhaust system for any sign of gas leakage, cracks, significant areas of damage or corrosion. Re-tighten any loose bolts if necessary.

Note: If there is any indication of leaks or damage, cease operation immediately and conduct a broader inspection to determine the cause and resolve.

Thank you for choosing inExhaust as your exhaust system components solution!
For any questions, please contact us at sales@inExhaust.com.

inExhaust™ reserves the right to change the contents without notice. We do make every effort to have the most recent documents on our website. For latest revision please contact inExhaust™.

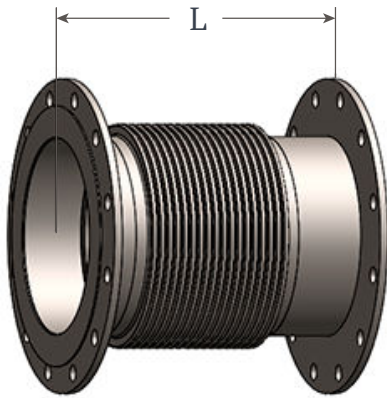
This guide is also available on our website: www.inExhaust.com



**Example of a Custom
Bellows Connector with
Flanges on Both Ends**

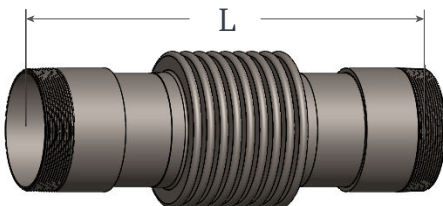
EXPANSION JOINTS/SINGLE-PLY BELLOWS

Floating ANSI Pattern Flange One End/Fixed ANSI Pattern Flange One End



PART NUMBER	NS	L	WT
23-035-L14-60F60	3.5	14	19
23-040-L14-60F60	4	14	20
23-050-L16-60F60	5	16	25
23-060-L18-60F60	6	18	30
23-080-L18-60F60	8	18	40
23-100-L18-60F60	10	18	53
23-120-L18-60F60	12	18	70
23-140-L18-60F60	14	18	75
23-160-L18-60F60	16	18	90
23-180-L18-60F60	18	18	100
23-200-L18-60F60	20	18	105
23-220-L18-60F60	22	18	120
23-240-L18-60F60	24	18	135
23-260-L18-60F60	26	18	152
23-280-L18-60F60	28	18	165
23-300-L18-60F60	30	18	188

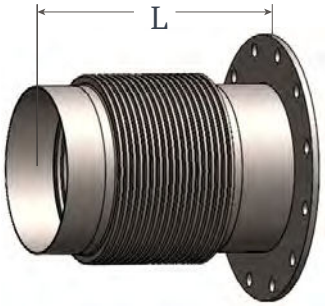
Male NPT Both Ends



PART NUMBER	NS	L	WT
23-035-L14-9191	3.5	14	8
23-040-L14-9191	4	14	12
23-050-L16-9191	5	16	17
23-060-L18-9191	6	18	23

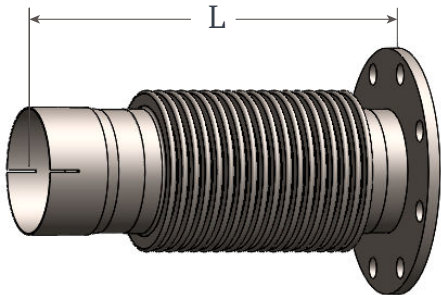
EXPANSION JOINTS/SINGLE-PLY BELLOWS

Female NPT One End/ANSI Pattern Flange One End



PART NUMBER	NS	L	WT
23-035-L14-9060	3.5	14	14
23-040-L14-9060	4	14	16
23-050-L16-9060	5	16	19
23-060-L18-9060	6	18	22

Slotted ID Cuff One End/ANSI Pattern Flange One End



PART NUMBER	NS	L	WT
23-035-L14-4060	3.5	14	12
23-040-L14-4060	4	14	14
23-050-L16-4060	5	16	16
23-060-L18-4060	6	18	20

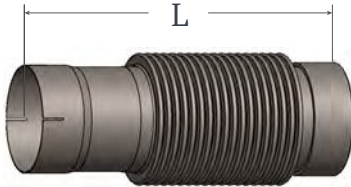
Slotted ID Cuff One/Male NPT One End



PART NUMBER	NS	L	WT
23-035-L14-4091	3.5	14	5
23-040-L14-4091	4	14	9
23-050-L16-4091	5	16	12
23-060-L18-4091	6	18	16

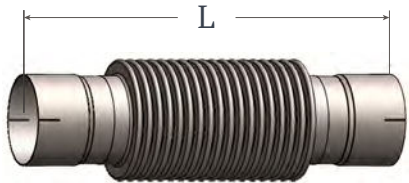
EXPANSION JOINTS/SINGLE-PLY BELLOWS

Slotted ID Cuff One/Female NPT One End



PART NUMBER	NS	L	WT
23-035-L14-4090	3.5	14	6
23-040-L14-4090	4	14	8
23-050-L14-4090	5	14	10
23-060-L16-4090	6	16	13

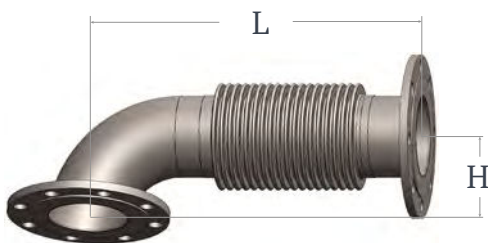
Slotted ID Cuff Both Ends



PART NUMBER	NS	L	WT
23-035-L18-4040	3.5	18	7
23-040-L18-4040	4	18	8
23-050-L18-4040	5	18	9
23-060-L18-4040	6	18	11
23-080-L18-4040	8	18	15
23-100-L18-4040	10	18	19
23-120-L18-4040	12	18	20

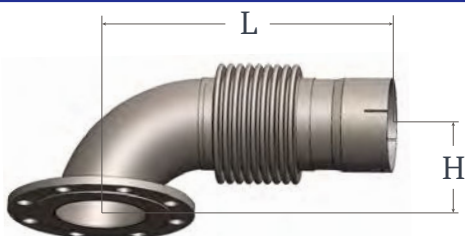
BELLOWS WITH 90° FORMED ELBOW

90° Elbow/Floating ANSI Pattern Flange Both Ends



PART NUMBER	NS	L	H	WT
24-040-L18H4.25-60F60F	4	18	4.25	23
24-050-L18H5.75-60F60F	5	18	5.75	26
24-060-L18H6.25-60F60F	6	18	6.25	30
24-080-L18H10-60F60F	8	18	10.00	46
24-100-L18H11-60F60F	10	18	11.00	56
24-120-L20H12-60F60F	12	20	12.00	76

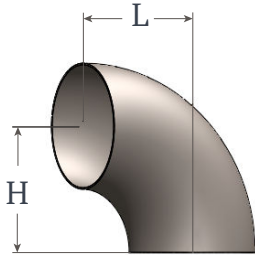
Floating ANSI Pattern Flange One End/90° Elbow/Slotted ID Cuff One End



PART NUMBER	NS	L	H	WT
24-040-L18H4.25-60F40	4	18	4.25	16
24-050-L18H5.75-60F40	5	18	5.75	19
24-060-L20H6.25-60F40	6	20	6.25	23

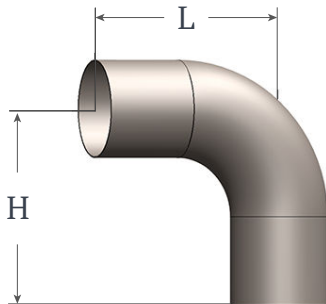
90° SHORT RADIUS

Tangent Cut Both Ends*



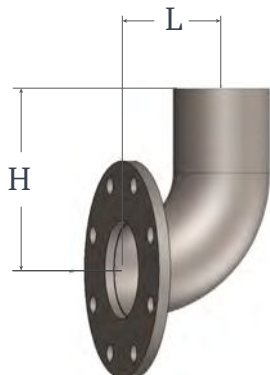
PART NUMBER	NS	L	H	R	WT
30-020	2	2	2	2	0.50
30-025	2.5	2.5	2.5	2.5	0.60
30-030	3	3	3	3	0.80
30-035	3.5	3.5	3.5	3.5	1.00
30-040	4	4	4	4	1.50
30-050	5	5.5	5.5	5.5	2.50
30-060	6	6	6	6	3.75
30-080	8	8	8	8	9.25
30-100	10	10	10	10	14.50
30-120	12	12	12	12	21.00

Plain Both Ends*



PART NUMBER	NS	L	H	R	WT
31-020	2	4	4	2	1.0
31-025	2.5	5	5	2.5	1.5
31-030	3	5	5	3	2.0
31-035	3.5	5.5	5.5	3.5	3.0
31-040	4	6	6	4	4.0
31-050	5	10	10	5.5	6.0
31-060	6	10	10	6	9.0
31-080	8	15	15	8	21.0
31-100	10	19	19	10	32.0
31-120	12	23	23	12	46.0

ANSI Pattern Flange One End/Plain One End*

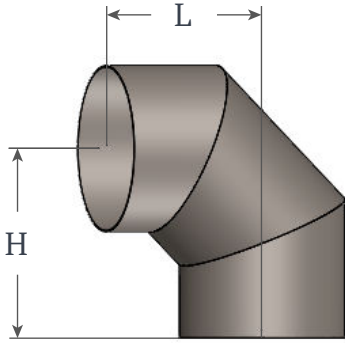


PART NUMBER	NS	L	H	R	WT
31-040-60	4	4.25	7.5	4	10
31-050-60	5	5.75	9	5.5	12
31-060-60	6	6.25	11	6	16
31-080-60	8	8.25	12	8	26
31-100-60	10	10.25	14	10	36
31-120-60	12	12.25	16	12	50

*Weld seams may appear on each end.

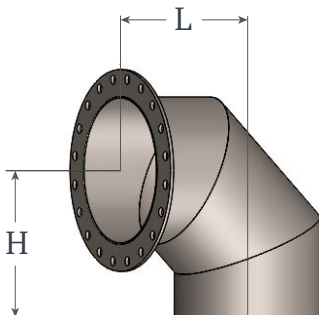
90° SHORT RADIUS

90° Mitered – Plain Both Ends



PART NUMBER	NS	L	H	R	WT
31M-080	8	8	8	8	12
31M-100	10	10	10	10	18
31M-120	12	12	12	12	23
31M-140	14	14	14	14	33
31M-160	16	16	16	16	42
31M-180	18	18	18	18	68
31M-200	20	20	20	20	83
31M-220	22	22	22	22	98
31M-240	24	24	24	24	115
31M-260	26	26	26	26	135
31M-280	28	28	28	28	158
31M-300	30	30	30	30	180

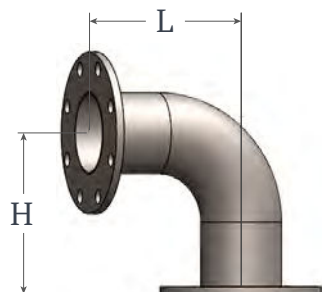
90° Mitered – ANSI Pattern Flange One End/Plain One End



PART NUMBER	NS	L	H	R	WT
31M-080-60	8	8	8	8	24
31M-100-60	10	10	10	10	33
31M-120-60	12	12	12	12	46
31M-140-60	14	14	14	14	58
31M-160-60	16	16	16	16	70
31M-180-60	18	18	18	18	98
31M-200-60	20	20	20	20	117
31M-220-60	22	22	22	22	134
31M-240-60	24	24	24	24	160
31M-260-60	26	26	26	26	184
31M-280-60	28	28	28	28	210
31M-300-60	30	30	30	30	240

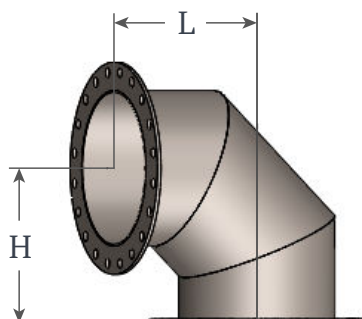
90° ELBOWS – SHORT RADIUS

90° ANSI Pattern Flange Both Ends - Formed*



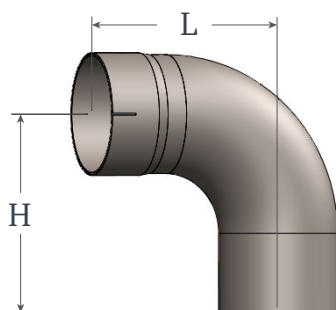
PART NUMBER	NS	L	H	WT
31-040-6060	4	6	6	17
31-050-6060	5	10	10	22
31-060-6060	6	10	10	25
31-080-6060	8	12	12	42
31-100-6060	10	14	14	55
31-120-6060	12	16	16	76

90° ANSI Pattern Flange Both Ends - Mitered



PART NUMBER	NS	L	H	WT
31M-080-6060	8	8	8	36
31M-100-6060	10	10	10	50
31M-120-6060	12	12	12	68
31M-140-6060	14	14	14	82
31M-160-6060	16	16	16	102
31M-180-6060	18	18	18	126
31M-200-6060	20	20	20	153
31M-220-6060	22	22	22	173
31M-240-6060	24	24	24	205
31M-260-6060	26	26	26	234
31M-280-6060	28	28	28	263
31M-300-6060	30	30	30	300

90° Short Radius – Slotted ID Cuff One End/Plain One End*

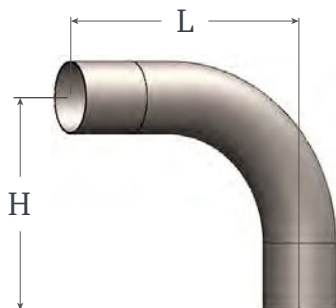


PART NUMBER	NS	L	H	R	WT
32-020	2	4	4	2	1.0
32-025	2.5	5	5	2.5	2.0
32-030	3	5	5	3	3.0
32-035	3.5	5.5	5.5	3.5	3.5
32-040	4	6	6	4	4.0
32-050	5	10	10	5.5	6.0
32-060	6	10	10	6	8.0
32-080	8	15	15	8	20.0
32-100	10	19	19	11	32.0
32-120	12	23	23	12	43.0

*Weld seams may appear on each end.

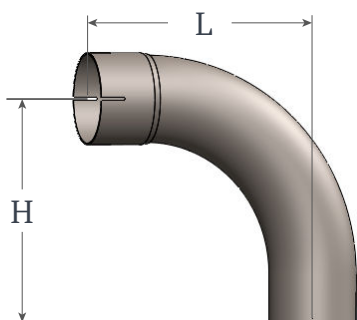
90° LONG RADIUS, 45° SHORT RADIUS

90° Long Radius – Plain Both Ends*



PART NUMBER	NS	L	H	R	WT
33-020	2	6	6	4	1.0
33-025	2.5	6.5	6.5	4	1.5
33-030	3	8	8	6	2.3
33-035	3.5	9	9	7	3.3
33-040	4	11	11	8	4.0
33-050	5	14.5	14.5	10	6.5
33-060	6	17	17	10	9.5

90° Long Radius – Slotted ID Cuff One End/Plain One End*



PART NUMBER	NS	L	H	R	WT
34-020	2	6	6	4	1.0
34-025	2.5	6.5	6.5	4	1.5
34-030	3	8	8	6	2.3
34-035	3.5	9	9	7	3.3
34-040	4	11	11	8	4.0
34-050	5	14.5	14.5	10	6.5
34-060	6	17	17	10	9.5

45° Short Radius – Tangent Cuts Both Ends*



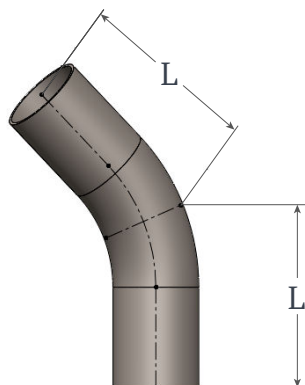
PART NUMBER	NS	R	WT
35-020	2	2	0.2
35-025	2.5	2.5	0.3
35-030	3	3	0.4
35-035	3.5	3.5	0.5
35-040	4	4	0.7
35-050	5	5	1.0
35-060	6	6	1.5
35-080	8	8	2.6
35-100	10	10	4.1
35-120	12	12	6.0

*Weld seams may appear on each end.



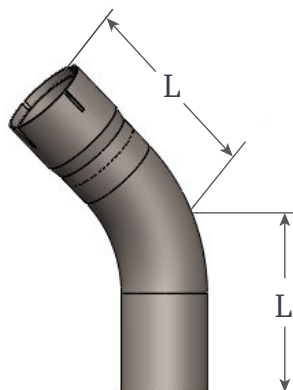
45° SHORT & LONG RADIUS

45° Long Radius – Plain Both Ends*



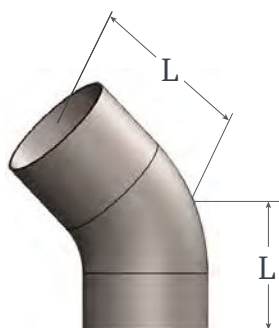
PART NUMBER	NS	L	R	WT
36-020	2	6	4	0.8
36-025	2.5	6	4	1.2
36-030	3	6	6	1.8
36-035	3.5	7	7	2.3
36-040	4	6	8	2.8
36-050	5	14	8	4.2
36-060	6	10	10	6.6

45° Long Radius – Slotted ID Cuff One End/Plain One End*



PART NUMBER	NS	L	R	WT
37-020	2	6	4	0.8
37-025	2.5	6	4	1.4
37-030	3	6	6	1.7
37-035	3.5	7	7	2.5
37-040	4	8	8	2.8
37-050	5	14	8	4.3
37-060	6	10	10	6.7

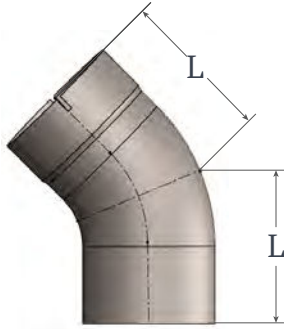
45° Short Radius – Plain Both Ends*



PART NUMBER	NS	L	R	WT
38-020	2	3	2	0.6
38-025	2.5	3.5	2.5	0.9
38-030	3	4	3	1.2
38-035	3.5	4.5	3.5	1.7
38-040	4	5	4	2.1
38-050	5	6	5	3.2
38-060	6	7	6	4.6

*Weld seams may appear on each end.

45° Short Radius – Cuff One End/Plain One End*

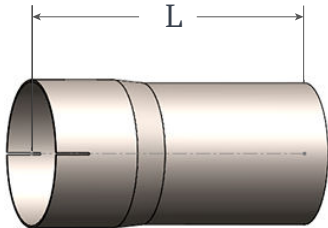


PART NUMBER	NS	L	R	WT
39-020	2	3	2	0.6
39-025	2.5	3.5	2.5	0.9
39-030	3	4	3	1.2
39-035	3.5	4.5	3.5	1.7
39-040	4	5	4	2.0
39-050	5	6	5	3.2
39-060	6	7	6	4.7

*Weld seams may appear on each end.

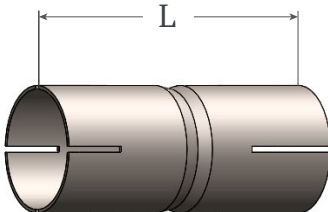
TUBE FITTINGS

Slotted ID Cuff One End/Plain One End



PART NUMBER	NS	L	WT
40-020	2	4.5	0.46
40-025	2.5	4.5	0.75
40-030	3	5	1.00
40-035	3.5	5.5	1.25
40-040	4	6	1.30
40-050	5	6	2.00
40-060	6	6	2.50
40-080	8	8	6.00
40-100	10	8	7.00
40-120	12	10	11.00

Slotted ID Cuff Both Ends



PART NUMBER	NS	L	WT
41-020	2	4.5	0.75
41-025	2.5	4.5	1.00
41-030	3	5	1.25
41-035	3.5	5.5	1.50
41-040	4	6	2.00
41-050	5	6.5	2.50
41-060	6	6.5	3.00
41-080	8	8.5	6.00
41-100	10	8.5	8.00
41-120	12	10.5	11.00

REDUCERS/EXPANDERS

Slotted ID Cuff Both Ends



PART NUMBER	NS1	NS2	L	WT
42-025030	2.5	3	6	1.00
42-030035	3	3.5	6	1.10
42-030040	3	4	6	1.20
42-035040	3.5	4	6	1.25
42-040050	4	5	6	1.50
42-050060	5	6	6	2.00

Slotted ID Cuff One End/Plain One End



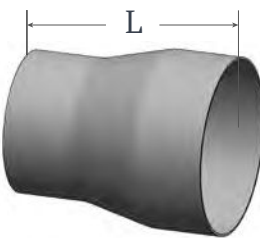
PART NUMBER	NS1	NS2	L	WT
43-025030	2.5	3	6	1.00
43-030035	3	3.5	6	1.10
43-030040	3	4	6	1.20
43-035040	3.5	4	6	1.25
43-040050	4	5	6	1.50
43-050060	5	6	6	2.00

Plain One End/Slotted ID Cuff One End



PART NUMBER	NS1	NS2	L	WT
44-025030	2.5	3	6	1.00
44-030035	3	3.5	6	1.10
44-030040	3	4	6	1.20
44-035040	3.5	4	6	1.25
44-040050	4	5	6	1.50
44-050060	5	6	6	2.00

Plain Both Ends



PART NUMBER	NS1	NS2	L	WT
45-025030	2.5	3	6	1.00
45-030035	3	3.5	6	1.10
45-030040	3	4	6	1.20
45-035040	3.5	4	6	1.25
45-040050	4	5	6	1.50
45-050060	5	6	6	2.00

Read through the entire manual before proceeding with installation.

Any procedures presented in this guide are suggestions only, and it is the responsibility of the owner/operator to ensure that the installation is done only by trained, qualified individuals, and performed according to all applicable codes including, but not limited to, local codes for your municipality, city, county and state; this includes all electrical and mechanical work. All workers must be trained in the proper safety procedures and appropriate PPE and attire must be worn at all times.

Note: Wye connectors are not designed to compensate for misalignment or vibration isolation. Proper spring and dampers should be used as engine/genset and silencer mounts.

PRE-INSTALLATION

- Prior to unpacking, check all components for shipping damage.
- Verify the correct parts are received by comparing the nameplate with the packing list.
- Locate nameplate and note direction (if applicable).
- Keep the shipping materials intact to protect the unit until installation is complete.
- Verify that the wye connector and recommended gaskets are of proper size for the mating surface openings and ensure that all mating surfaces are clean and free of foreign material before installation.
- When cleaning the surfaces, do not use abrasive materials such as steel wool or wire brushes. Use only isopropyl alcohol and clean with soft rags. (Do not use chloride or halide-based cleaners.)
- Exhaust system components inside the enclosure may need to be covered with suitable insulation wrap to protect personnel and reduce room temperature. Use only chloride and halide-free insulation. (Removable Thermal Insulation Covers, aka Thermal Wrap, available from inExhaust™)
- Observe all OSHA mandated regulations for the safe rigging of exhaust equipment.
- Do not use any lifting device directly on the wye or wye cover, especially the flexible portion.
- Prior to welding or other potentially damaging work, protect the wye connector element.
- Don't pre-stretch or compress wye at time of installation. The wye connector must be relaxed at time of install.
- If flange connections are used, flanged faces must be parallel with each other and mating surfaces must also be parallel.

INSTALLATION

Flanged Connections:

1. Place the flange of the connector (floating flange, if used) over the exhaust outlet of the engine, with the gasket between the two facing surfaces and bolt holes properly aligned, so that the axial lines of the connector and mating orifice are concentrically aligned.
2. Loosely secure the flange over the mating face of the outlet using appropriate Nut-Bolt-Gasket (NBG) kit, aid in maintaining joint tightness over time. Higher grade fasteners will loosen as the system settles, causing failure. Do not use spring lock washers, as operating temperatures and pressures will cause them to degrade or disintegrate. Apply high temperature anti-seize to bolts – Loctite® 34517 or equivalent is suggested (not included or supplied by inExhaust).
3. Secure the opposite flange of the connector to the mating face of the receiving system, with the gasket between the two facing surfaces and bolt holes properly mated. Use the same grade of fasteners as previously described, ensuring that the axial lines of the engine outlet, connector, and mating orifice remain concentrically aligned. Ensure that the wye connector is not stretched or compressed while tightening fasteners.



CONTINUED

Caution:

- a) To avoid potential failure, do not handle or install this product in a manner or position such that torqueing, or twisting can occur along its axial line. The installation must be pre-aligned so that bolts for all mating surfaces can drop into place with no force, offsetting, bending, twisting or other form of distortion. Do not force-rotate one end of the expansion joint for alignment of the bolt holes.
 - b) Pre-loading of flange connections due to misalignment will result in premature failure and will void the warranty.
 - c) The installation must produce no downward force or loads exerted on the engine exhaust outlet.
4. To ensure uniform flange pressure for flanged connections, tighten bolts in a star shaped pattern until all are snug.
 5. Following the same star-shaped pattern, torque the bolts to the specified torque. Never torque bolts directly to the left or right of the previously torqued bolt.
 - a) Torque only after all nuts and bolts are hand tight.

Cuffed Connections:

1. Ensure the clamp is loosely attached to either the cuff or the exhaust piping prior to fitting the exhaust piping to the cuff.
 2. Insert the exhaust piping securely into the cuffed portion of the connection, ensuring that the exhaust piping is uniformly bottomed out.
 3. Position the clamp towards the edge of the cuff, allowing a min. of 0.5" from the edge of the clamp to the edge of the pipe.
 4. Torque the clamp bolts until tight. Re-check tightness prior to and after initial engine start and system commissioning.
- Ensure that the installation complies with maximum allowable lateral offset and axial movement in inches per foot as specified in Technical Specification Table.
 - This product is rated at 5 PSIG (0.34bar). Hydrostatic test pressure shall not exceed 1.5 times the rated pressure.
 - For maximum durability, allow the wye connector to operate as closely as possible to a free state.

POST-INSTALLATION

- Review that all components of your exhaust system are properly installed and ready for operation.
- If there is any indication of leaks or damage, cease operation immediately and conduct a broader inspection to determine the cause and resolve.
- After the initial engine run and cool down, re-check all bolts for tightness and torque as required.
- Exhaust back-pressure must not exceed the allowable back-pressure specified by the engine manufacturer. Excessive exhaust back-pressure reduces engine power and engine life and may lead to high exhaust temperatures and smoke. Engine exhaust back-pressure should be estimated before the layout of the exhaust system is finalized and is recommended to be measured at the exhaust outlet under full-load operation, as needed.
- Verify that the type and amount of movement generated by the system are identical with movements the expansion joint is designed for.

CONTINUED

MAINTENANCE

It is recommended that maintenance is performed monthly, or every 10 hours of operation, (whichever comes first).

Maintenance for a typical exhaust system installation will consist of physical and visual examination of the exhaust system for any sign of gas leakage, cracks, significant areas of damage or corrosion. Re-tighten any loose bolts if necessary.

Note: If there is any indication of leaks or damage, cease operation immediately and conduct a broader inspection to determine the cause and resolve.

Thank you for choosing inExhaust as your exhaust system components solution!
For any questions, please contact us at sales@inExhaust.com.

inExhaust™ reserves the right to change the contents without notice. We do make every effort to have the most recent documents on our website. For latest revision please contact inExhaust™.

This guide is also available on our website: www.inExhaust.com

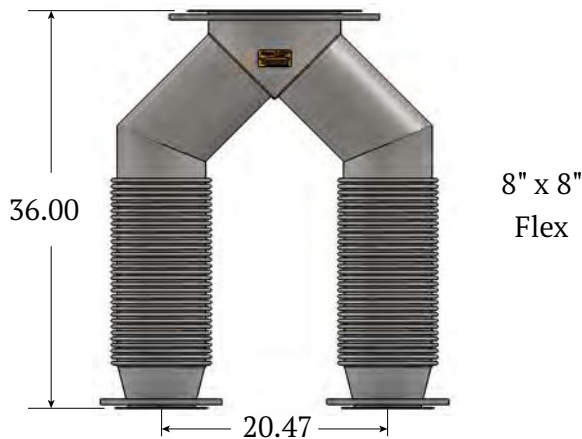


**Example of a WYE
Connector**



3508 B Dual 6" Caterpillar Flange Inlets

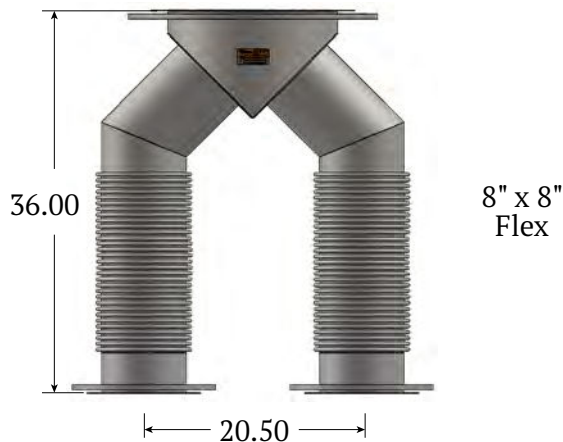
MODEL/PART NUMBER	SIZES	WT
50-1208-3508-H36	8 x 8 x 12	100



- Carbon steel construction 321 stainless steel corrugated flex hose.
- All welding is T.I.G.
- ANSI Flange may be replaced with engine flanges.
- Flanged Outlets are Floating
- All dimensions are in inches.
- Connections can be ordered in 100% Stainless Steel.

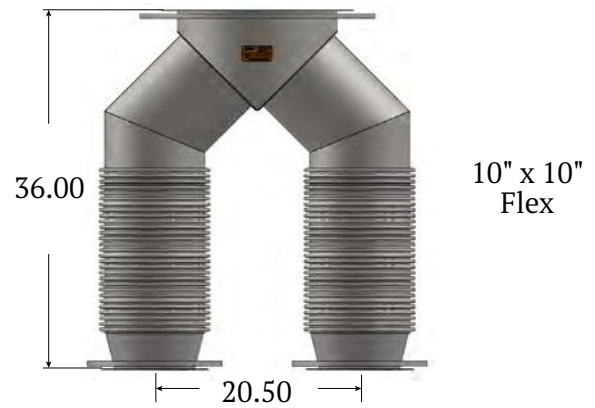
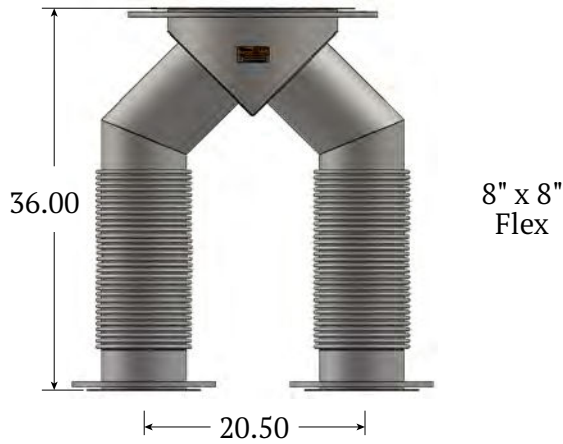
3512 C Dual 8" Caterpillar Flange Inlets

MODEL/PART NUMBER	SIZES	WT
50-1408-3512C-H36	8 x 8 x 14	110
50-1410-3512C-H36	10 x 10 x 14	120
50-1608-3512C-H36	8 x 8 x 16	120
50-1610-3512C-H36	10 x 10 x 16	130



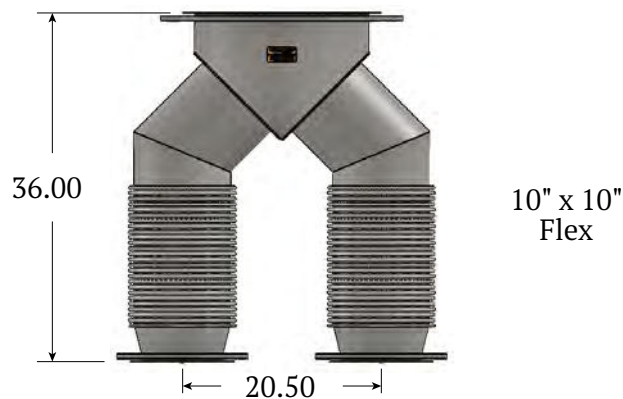
3516 C - Dual 8" Caterpillar Flange Inlets

MODEL/PART NUMBER	SIZES	WT
50-1608-3516C-H36	8 x 8 x 16	115
50-1610-3516C-H36	10 x 10 x 16	125
50-1808-3516C-H36	8 x 8 x 18	130
50-1810-3516C-H36	10 x 10 x 18	140



3516 Quad Turbo - Dual 8" Caterpillar Flange Inlets

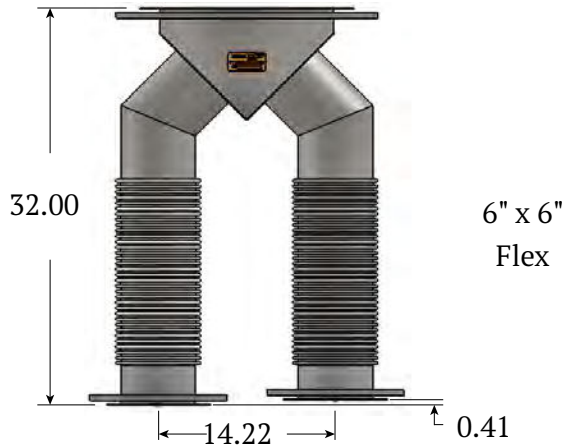
MODEL/PART NUMBER	SIZES	WT
50-1410-3516QT-H36	10 x 10 x 14	115
50-1610-3516QT-H36	10 x 10 x 16	125
50-1810-3516QT-H36	10 x 10 x 18	140



- Carbon steel construction 321 stainless steel corrugated flex hose.
- All welding is T.I.G.
- Flanged Outlets are Floating
- Connections can be ordered in 100% Stainless Steel.

QST 30 - Floating Cummins Flange Inlets

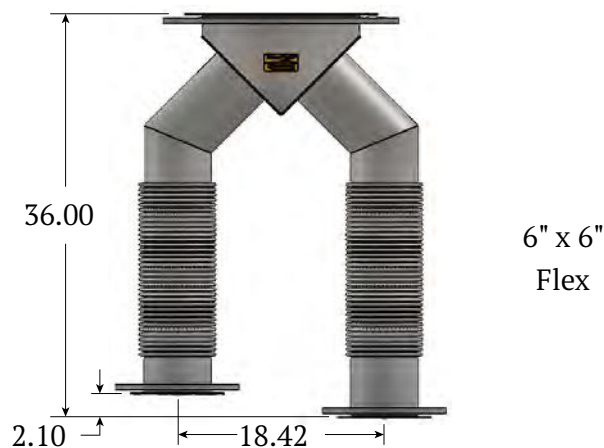
MODEL/PART NUMBER	GEN SET MODEL	SIZES	WT
51-1006-T30FAA-H32	DQFAA 750	6 x 6 x 10	70
51-1006-T30FAB-H32	DQFAB 800	6 x 6 x 10	70
51-1206-T30FAC-H32	DQFAC 900	6 x 6 x 12	80
51-1406-T30FAD-H32	DQFAD 1000	6 x 6 x 14	85



- Carbon steel construction 321 stainless steel corrugated flex hose.
- All welding is T.I.G.
- Flanged Outlets are Floating
- Connections can be ordered in 100% Stainless Steel.

QSK 50 - Floating Cummins Flange Inlets

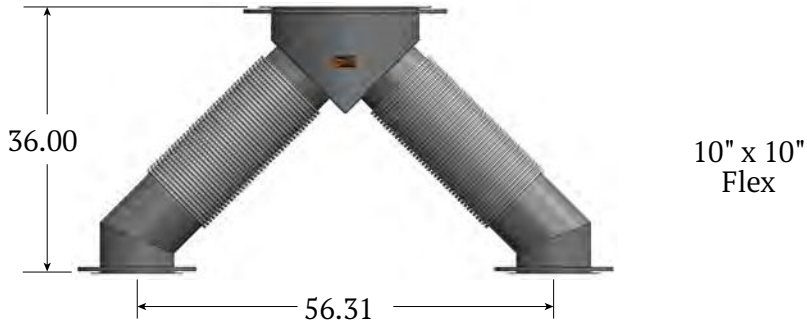
MODEL/PART NUMBER	GEN SET MODEL	SIZES	WT
51-1206-K50GAA-H36	DQGAA 1250	6 x 6 x 12	80
51-1406-K50GAB-H36	DQGAB 1250	6 x 6 x 14	85
51-1406-K50GAB-H36	DQGAB 1500	6 x 6 x 14	85



- Carbon steel construction 321 stainless steel corrugated flex hose.
- All welding is T.I.G.
- Flanged Outlets are Floating
- Connections can be ordered in 100% Stainless Steel.

QSK 60 - Floating ANSI Flange Inlets

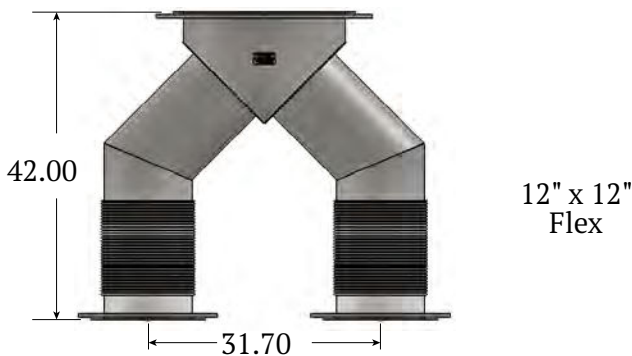
MODEL/PART NUMBER	GEN SET MODEL	SIZES	WT
51-1410-K60KAA-H36	DQKAA 1750	10 x 10 x 14	140
51-1610-K60KAA-H36	DQKAA 1750	10 x 10 x 16	145
51-1610-K60KAB-H36	DQKAB 2000	10 x 10 x 16	145
51-1810-K60KAB-H36	DQKAB 2000	10 x 10 x 18	155
51-2010-K60KAB-H36	DQKAB 2000	10 x 10 x 20	170
51-1810-K60KH-H36	DQKH 2250	10 x 10 x 18	155
51-2010-K60KH-H36	DQKH 2250	10 x 10 x 20	170



- Carbon steel construction 321 stainless steel corrugated flex hose.
- All welding is T.I.G.
- ANSI Flange may be replaced with engine flanges.
- Flanged Outlets are Floating
- Connections can be ordered in 100% Stainless Steel.

QSK78 - Floating ANSI Flange Inlets

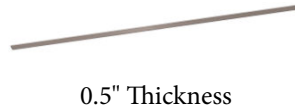
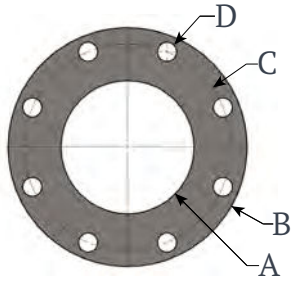
MODEL/PART NUMBER	GEN SET MODEL	SIZES	WT
51-1812-K78LA-H42	DQLA 2700	12 x 12 x 18	170
51-2012-K78LA-H42	DQLA 2700	12 x 12 x 20	180
51-2212-K78LA-H42	DQLA 2700	12 x 12 x 22	190
51-2412-K78LA-H42	DQLA 2500	12 x 12 x 24	200
51-1812-K78LC-H42	DQLA 2500	12 x 12 x 18	170
51-2012-K78LC-H42	DQLA 2500	12 x 12 x 20	180
51-2212-K78LC-H42	DQLA 2500	12 x 12 x 22	190
51-2412-K78LC-H42	DQLA 2500	12 x 12 x 24	200



- Carbon steel construction 321 stainless steel corrugated flex hose.
- All welding is T.I.G.
- ANSI Flange may be replaced with engine flanges.
- Flanged Outlets are Floating
- Connections can be ordered in 100% Stainless Steel.

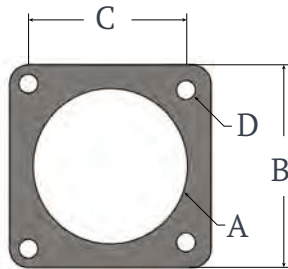


ANSI PATTERN FLANGES

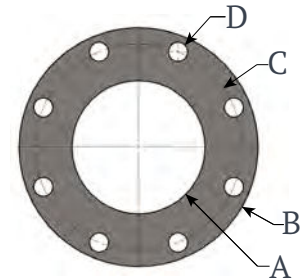
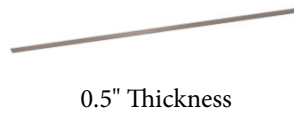


ANSI Pattern Plate – Carbon Steel

PART NUMBER	APPLICATION	NS	A ID	B OD	C BHC	D HD	HOLES	WEIGHT
60T-020	Tube	2	2.06	6.0	4.75	0.75	4	3.2
60P-020	Pipe	2	2.44	6.0	4.75	0.75	4	3.0
60T-025	Tube	2.5	2.56	7.0	5.50	0.75	4	4.2
60P-025	Pipe	2.5	2.94	7.0	5.50	0.75	4	4.0
60T-030	Tube	3	3.06	7.5	6.00	0.75	4	4.7
60P-030	Pipe	3	3.57	7.5	6.00	0.75	4	5.2
60T-035	Tube	3.5	3.56	8.5	7.00	0.75	8	5.5
60P-035	Pipe	3.5	4.07	8.5	7.00	0.75	8	5.5
60T-040	Tube	4	4.06	9.0	7.50	0.75	8	7.0
60P-040	Pipe	4	4.57	9.0	7.50	0.75	8	6.0
60T-050	Tube	5	5.06	10.0	8.50	0.88	8	7.5
60P-050	Pipe	5	5.66	10.0	8.50	0.88	8	7.0
60T-060	Tube	6	6.06	11.0	9.50	0.88	8	8.5
60P-060	Pipe	6	6.72	11.0	9.50	0.88	8	7.5
60T-080	Tube	8	8.06	13.5	11.75	0.88	8	12.5
60P-080	Pipe	8	8.72	13.5	11.75	0.88	8	11.0
60T-100	Tube	10	10.06	16.0	14.25	1.00	12	18.0
60P-100	Pipe	10	10.88	16.0	14.25	1.00	12	17.0
60T-120	Tube	12	12.06	19.0	17.00	1.00	12	21.0
60P-120	Pipe	12	12.88	19.0	17.00	1.00	12	20.0
60T-140	Tube	14	14.19	21.0	18.75	1.13	12	24.0
60T-160	Tube	16	16.19	23.5	21.25	1.13	16	28.0
60T-180	Tube	18	18.19	25.0	22.75	1.25	16	30.0
60T-200	Tube	20	20.19	27.5	25.00	1.25	20	34.0
60T-220	Tube	22	22.19	29.5	27.25	1.38	20	36.0
60T-240	Tube	24	24.19	32.0	29.50	1.38	20	38.0
60T-260	Tube	26	26.19	34.3	31.75	1.38	24	43.0
60T-280	Tube	28	28.19	36.5	34.00	1.38	28	49.0
60T-300	Tube	30	30.19	38.8	36.00	1.38	28	55.0



Caterpillar 3 inch-6 inch



Caterpillar

PART NUMBER	NS	A ID	B OD	C BHC	C BHS	D HD	HOLES	WEIGHT
61T-030	3	3.12	5.50	-	4.13	0.56	4	3
61T-040	4	4.06	5.50	-	4.13	0.56	4	2.5
61T-050	5	5.06	6.50	-	5.00	0.75	4	3
61T-060	6	6.06	7.75	-	6.00	0.75	4	4.25
61T-080	8	8.06	11.00	9.88	-	0.56	8	6
61T-100	10	10.06	13.50	12.44	-	0.50	12	9
61T-120	12	12.06	16.00	14.80	-	0.50	12	12
61T-140	14	14.06	18.50	16.93	-	0.63	12	15

Cummins

PART NUMBER	NS	A ID	B OD	C BHC	D HD	HOLES	WEIGHT
62T-060	6	6.06	8.00	7.19	0.44	8	3

MTU

PART NUMBER	NS	A ID	B OD	C BHC	D HD	HOLES	WEIGHT
63T-060	6	6.06	9.50	8.19	0.44	6	6
63T-080	8	8.06	11.00	9.88	0.56	8	6
63T-100	10	10.06	13.00	11.88	0.63	8	8

BHC = Bolt Hole Centerline, BHS = Bolt Hole Spaced

COMMON APPLICATIONS

To protect atmospheric vessels such as exhaust silencers from damage due to sudden pressure rises. (Backfires, etc.)

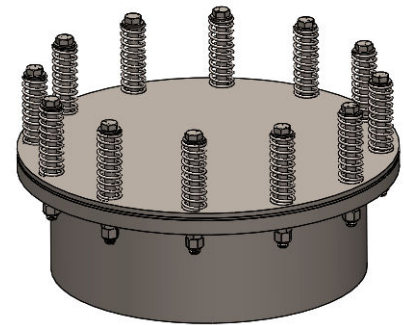
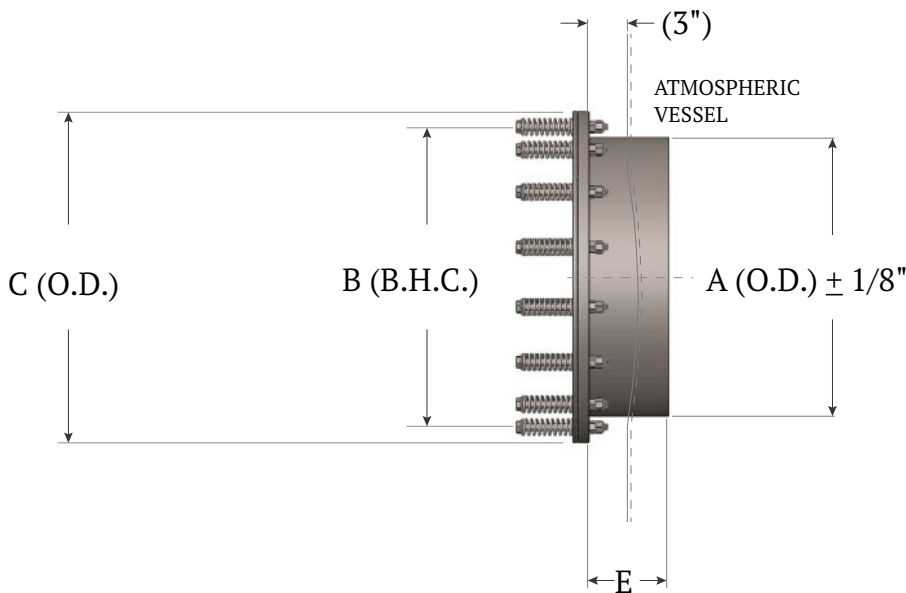
OPENING PRESSURE

Approximately 5 PSIG.

NOTE: Only kits installed at the factory are covered under warranty.

Explosion Relief Cover Kits

PART NUMBER	NS	RECOMMENDED FOR SILENCER NOMINAL SIZES	A OD	B BHC	C OD	D # OF SPRINGS	E OAL NOZZLE
68-120-KIT	12	4" through 8"	12	13.75	15.75	6	6
68-150-KIT	15	10" through 16"	15	17	18.75	12	6
68-19.5-KIT	19.5	18" through 40"	19.375	21.25	23	16	6

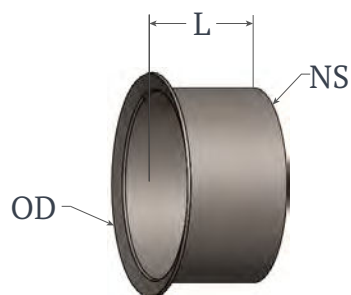


Kit Contents

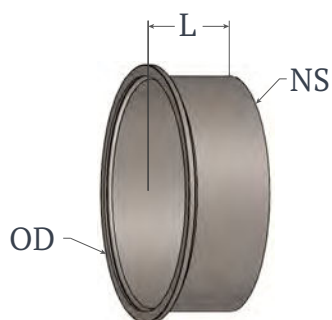
- Cover: Carbon steel plate.
- Flange: Carbon steel plate with equally spaced holes.
- Springs: Carbon steel compression springs, zinc plated.
NOTE: Springs are compressed to 3.5" length. *Heat will affect spring rate.*
- Fasteners: Carbon steel, heavy hex, zinc plated, 1/2" x 6" long.
Includes hex nut, hex jam nut and washer.
- Gasket: Full face graphite.

FLARED, STACK BREAKER

Flared Flange				
PART NUMBER	NS	OD	L	WT
73-025-L3	2.5	3.13	3.0	0.5
73-030-L1.5	3	3.63	1.5	0.3
73-035-L1.5	3.5	4.25	1.5	0.4
73-040-L1.5	4	4.63	1.5	0.5
73-050-L3	5	5.75	3.0	1.0
73-060-L3	6	6.75	3.0	2.0



Stack Breaker Flange				
PART NUMBER	NS	OD	L	WT
75-020	2	2.75	1.5	0.25
75-025	2.5	3.25	1.5	0.30
75-030	3	3.75	1.5	0.40
75-035	3.5	4.25	1.5	0.45
75-040	4	4.75	1.5	0.50
75-050	5	5.75	1.5	0.60
75-060	6	6.75	1.5	0.75



METAL REINFORCED FIBER GASKET MATERIAL

COMMON APPLICATIONS

Catalytic Converter Gaskets, Exhaust Manifold Gaskets, EGR Gaskets, Heat Shield Applications, Diesel Exhaust Gaskets

TEMPERATURE RATING 1000 °C/1800 °F

GENERAL DESCRIPTION

Fiber gasket uses a 0.008" ETP (electrolytic tin plate) low carbon steel core. The core is then laminated on two sides with a facing composed of heat resistant vermiculite and ceramic fibers chemically bonded with an NBR binder. It is designed for hot gas applications where extreme heat is present.

The fiber facings are mechanically bonded without the use of any adhesives, providing stability and integrity even when exposed to high heat, scrubbing and vibration. Color is light brown.

Full Face Fiber Gaskets			
PHYSICAL TEST PROPERTIES	SPECIFICATION RANGE	NOMINAL TEST VALUES	TEST METHOD
Compression @ 34.5 MPa (5000psi)	25-40%	35%	ASTM F-806
Recovery @ 34.5 MPa (5000psi)	30% Min	34%	ASTM F-806
Ignition Loss (1 hour @ 1500° F)	30% Max	27%	
Air Aging 70 hrs. @ 540° C (1000° F)			
Thickness Loss	0-10%	6%	ASTM D-573
Weight Loss	20% Max	11%	ASTM D-573
Fluid Immersions (22 hours @ 78°-85° F)			
Fluid Resistance ASTM IRM903 Oil			
Thickness Change	10-20%	12%	ASTM F-146
Weight Change	70% ▲ Max	58%	ASTM F-146
Fluid Resistance ASTM Fuel B			
Thickness Change	10-20%	15%	ASTM F-146
Weight Change	50% ▲ Max	45%	ASTM F-146

*For graphite, ceramic or other gaskets, please contact the factory: sales@inExhaust.com

ANSI Pattern



1/6" - 1/8" Thickness (approximate)

PART NUMBER	NS	ID	OD
76-040-60	4	4.5	9.0
76-050-60	5	5.6	10.0
76-060-60	6	6.6	11.0
76-080-60	8	8.6	13.5
76-100-60	10	10.8	16.0
76-120-60	12	12.8	19.0
76-140-60	14	14.0	21.0
76-160-60	16	16.0	23.5
76-180-60	18	18.0	25.0
76-200-60	20	20.0	27.5
76-220-60	22	22.0	29.5
76-240-60	24	24.0	32.0
76-260-60	26	26.0	34.3
76-280-60	28	28.0	36.5
76-300-60	30	30.0	38.8

Caterpillar, Cummins, MTU



Caterpillar 4"-6"



1/8" Thickness (approximate)

PART NUMBER	ENGINE	NS	ID	OD
76-040-61	CAT	4	4.06	5.50
76-050-61	CAT	5	5.06	6.50
76-060-61	CAT	6	6.06	7.80
76-080-61	CAT	8	8.06	11.00
76-100-61	CAT	10	10.06	13.50
76-120-61	CAT	12	12.06	16.00
76-140-61	CAT	14	14.06	18.50
76-060-62	CUM	6	6.06	8.25
76-060-63	MTU	6	6.06	10.50
76-080-63	MTU	8	8.06	11.00
76-100-63	MTU	10	10.06	13.00

ANSI



PART NUMBER	NS	BOLT DIA	BOLT LENGTH	BOLTS/NUTS PER SET
77-040-60	4	0.63	2.0	8
77-050-60	5	0.75	2.5	8
77-060-60	6	0.75	2.5	8
77-080-60	8	0.75	2.5	8
77-100-60	10	0.88	2.5	12
77-120-60	12	0.88	2.5	12
77-140-60	14	1.00	2.5	12
77-160-60	16	1.00	2.5	16
77-180-60	18	1.13	3.0	16
77-200-60	20	1.13	3.0	20
77-220-60	22	1.25	3.0	20
77-240-60	24	1.25	3.0	20
77-260-60	26	1.25	3.0	24
77-280-60	28	1.25	3.0	28
77-300-60	30	1.25	3.0	28

Caterpillar, Cummins, MTU



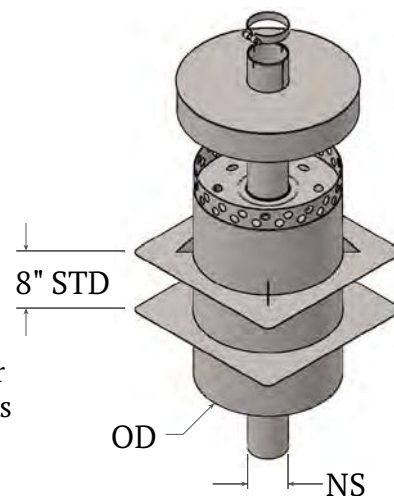
Caterpillar 4"-6"

PART NUMBER	ENGINE	NS	BOLT DIA	BOLT LENGTH	BOLTS/NUTS PER SET
77-040-61	CAT	4	0.50	2.0	4
77-050-61	CAT	5	0.63	2.0	4
77-060-61	CAT	6	0.63	2.0	4
77-080-61	CAT	8	0.38	2.5	8
77-100-61	CAT	10	0.38	2.5	12
77-120-61	CAT	12	0.38	2.5	12
77-140-61	CAT	14	0.50	2.0	12
77-060-62	CUM	6	0.38	2.5	8
77-060-63	MTU	6	0.38	2.5	6
77-080-63	MTU	8	0.38	2.5	8
77-100-63	MTU	10	0.50	2.0	8

Read through the entire manual before proceeding with installation.

Any procedures presented in this guide are suggestions only, and it is the responsibility of the owner/operator to ensure that the installation is done only by trained, qualified individuals, and performed according to all applicable codes including, but not limited to, local codes for your municipality, city, county and state; this includes all electrical and mechanical work. All workers must be trained in the proper safety procedures and appropriate PPE and attire must be worn at all times.

Thimbles provide protective transitions for exhaust piping where it is necessary to pass through walls and/or roofs safely to the outside atmosphere. Thimbles are critical in complying with local fire and safety regulations by protecting wall and/or roof material from exhaust tube heat. You should obtain the most up-to-date copies of documents from the National Electrical Code and other applicable authorities.



PRE-INSTALLATION

- We recommend hi-temperature rated sealant (Mil-A-46106B, 100 Series RTV) or similar for use in this application.
- Prior to unpacking, check all components for shipping damage.
- Keep shipping materials intact to protect the unit until installation is complete.
- Verify the correct parts are received by comparing the nameplate with the packing list.
- Verify that the thimble and recommended components are of proper size for the mating surface openings and ensure that all mating surfaces are clean and free of foreign material before installation.
- When cleaning the surfaces, do not use abrasive materials such as steel wool or wire brushes. Use only isopropyl alcohol and clean with soft rags. (Do not use chloride or halide-based cleaners.)
- Ensure the installation location is free of electrical, plumbing, or any other obstacle.

INSTALLATION

1. Cut a hole in the desired installation surface $\frac{1}{4}$ " larger than the thimble diameter or as the installing contractor recommends.
2. Apply a bead of sealant around the perimeter of the exterior flashing that will be in contact with the surface and is a minimum of one inch from the edge of the flashing.
3. Install the thimble through the hole so that the exterior flashing is flush against the outside surface, clocking as needed.
4. Apply a bead of sealant around the perimeter of the interior flashing that will be in contact with the surface and is a minimum of one inch from the edge of the flashing.
5. Install the interior flashing and clock as needed.
6. Install corrosion resistant fasteners into both the exterior and interior flashing surfaces, installing the fasteners with the recommended sealant in order to secure the thimble.
7. With thimble installed and fastened to surface, insert exhaust piping through the ID hole of the thimble. Ensure that enough exhaust piping is installed to be able to allow installation of the rain cap and clamp. Ensure that the exhaust piping is not in contact with the inner wall of the thimble.
8. Install a $\frac{1}{2}$ " bead of sealant at the gap around the perimeter of the thimble body and the exterior flashing to cover any gaps and prevent leakage.
9. From the exterior of the building, install the rain guard over the exhaust pipe with the included clamp.

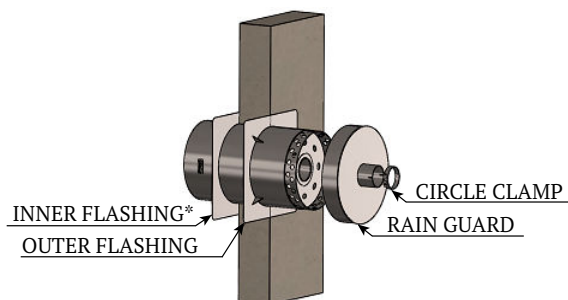
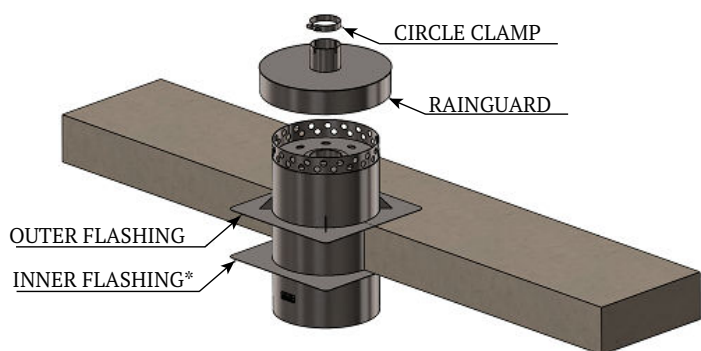


CONTINUED

10. Tighten the clamp to secure the rain guard to the thimble.
11. Ensure that the ventilation holes/slots are not blocked and are free of obstructions.

POST-INSTALLATION

- Review that all components of your exhaust system are properly installed and ready for operation.
- If there is any indication of leaks or damage, cease operation immediately and conduct a broader inspection to determine the cause and resolve.
- After the initial engine run and cool down, re-check all bolts for tightness and torque as required.
- Exhaust back-pressure must not exceed the allowable back-pressure specified by the engine manufacturer. Excessive exhaust back-pressure reduces engine power and engine life and may lead to high exhaust temperatures and smoke. Engine exhaust back-pressure should be estimated before the layout of the exhaust system is finalized and is recommended to be measured at the exhaust outlet under full-load operation, as needed.
- Verify that the type and amount of movement generated by the system are acceptable and do not cause damage to the installed product(s).



*Inner flashing shipped loose

MAINTENANCE

It is recommended that maintenance is performed monthly, or every 10 hours of operation, (whichever comes first).

Maintenance for a typical exhaust system installation will consist of physical and visual examination of the exhaust system for any sign of gas leakage, cracks, significant areas of damage or corrosion. Re-tighten any loose bolts if necessary. Apply new sealant as needed.

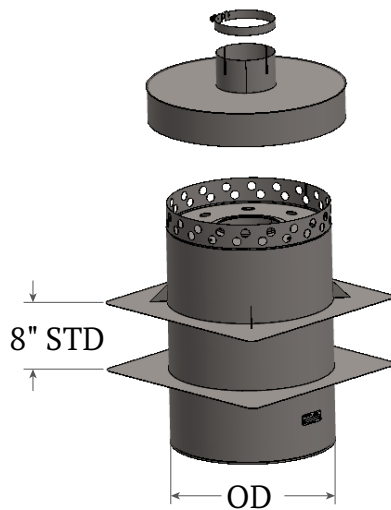
Note: If there is any indication of leaks or damage, cease operation immediately and conduct a broader inspection to determine the cause and resolve.

Thank you for choosing inExhaust as your exhaust system components solution!
For any questions, please contact us at sales@inExhaust.com.

inExhaust™ reserves the right to change the contents without notice. We do make every effort to have the most recent documents on our website. For latest revision please contact inExhaust™.

This guide is also available on our website: www.inExhaust.com

Combustible Walls



PART NUMBER	NS	OD	WEIGHT
80T-020-L26	2	14	52
80P-020-L26	2.38	15	53
80T-025-L26	2.5	15	53
80P-025-L26	2.88	15	57
80T-030-L26	3	15	57
80P-030-L26	3.5	16	58
80T-035-L26	3.5	16	58
80P-035-L26	4	16	66
80T-040-L26	4	16	66
80P-040-L26	4.5	17	68
80T-050-L26	5	17	88
80P-050-L26	5.56	18	90
80T-060-L26	6	18	98
80P-060-L26	6.63	19	100
80T-080-L26	8	20	114
80P-080-L26	8.63	21	117
80T-100-L26	10	22	130
80P-100-L26	10.75	23	136
80T-120-L26	12	24	146
80P-120-L26	12.75	25	150
80-140-L26	14	26	159
80-160-L26	16	28	175
80-180-L26	18	30	218
80-200-L26	20	32	245

*Pipe and/or tube not included with thimble

Customizations: Can be fit to roof curbs and/or roof pitch. Length may be customized for variable wall and roof thickness. Standard is carbon steel, stainless steel available. Call for estimate.

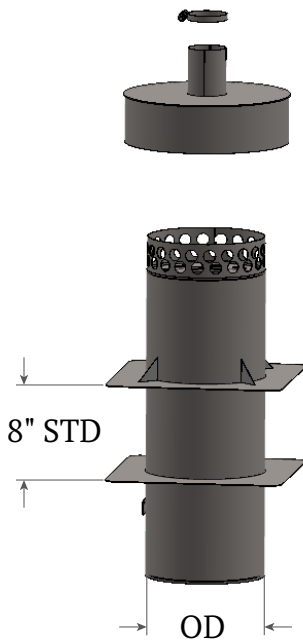
inExhaust thimbles conform to NFPA 37 and 110. Before installing, you should obtain the most up to date copies of local codes applicable to Generator Set or applicable installation. See your local building inspector.

Catalog standard thimbles modeled for 8" thick wall and/or flat roofs. Thimble to extend a minimum of 9" on each side of wall or roof.



ROOF & NON-COMBUSTIBLE WALLS

Roof & Non-Combustible Walls



PART NUMBER	NS	OD	WEIGHT
81T-020-L26	2	9	38
81P-020-L26	2.38	9	39
81T-025-L26	2.5	9	39
81P-025-L26	2.88	10	43
81T-030-L26	3	10	43
81P-030-L26	3.5	10	44
81T-035-L26	3.5	10	44
81P-035-L26	4	11	46
81T-040-L26	4	11	46
81P-040-L26	4.5	11	49
81T-050-L26	5	12	60
81P-050-L26	5.56	12	61
81T-060-L26	6	13	69
81P-060-L26	6.63	13	70
81T-080-L26	8	15	84
81P-080-L26	8.63	15	86
81T-100-L26	10	17	104
81P-100-L26	10.75	17	108
81T-120-L26	12	19	117
81P-120-L26	12.75	19	121
81-140-L26	14	20	131
81-160-L26	16	22	145
81-180-L26	18	26	180
81-200-L26	20	28	220

*Pipe and/or tube not included with thimble.

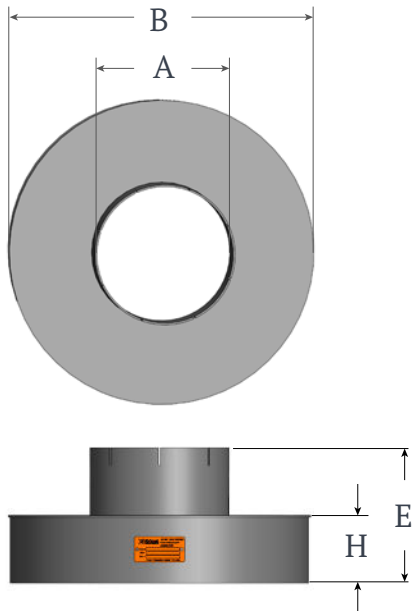
Customizations: Can be fit to roof curbs and/or roof pitch. Length may be customized for variable wall and roof thickness. Standard is carbon steel, stainless steel available. Call for estimate.

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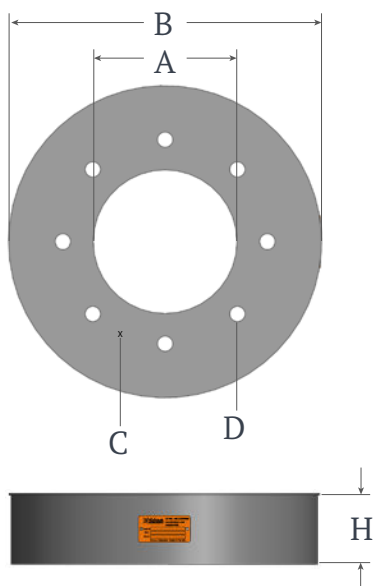
SLOTTED ID CUFF, ANSI FLANGE

Slotted ID Cuff Style



PART NUMBER	A ID	B DIA	E OAH	H HEIGHT	WT
82-040	4	15	8	4	11
82-045	4.5	15	8	4	11
82-050	5	15	8	4	11
82-055	5.56	15	8	4	11
82-060	6	15	8	4	12
82-066	6.63	15	8	4	12
82-080	8	18	8	4	20
82-086	8.63	18	8	4	20
82-100	10	20	8	4	23
82-108	10.75	20	8	4	23
82-120	12	24	8	4	29
82-128	12.75	24	8	4	29
82-140	14	24	8	4	28

ANSI Flange Style



PART NUMBER	A ID	B DIA	C BHC	D HD	H HEIGHT	WT
83-040	4.25	15	7.50	0.88	4	10
83-050	5.25	15	8.50	0.88	4	10
83-060	6.25	15	9.50	0.88	4	10
83-080	8.25	18	11.75	0.88	4	16
83-100	10.25	20	14.25	1.00	4	18
83-120	12.25	24	17.00	1.00	4	24
83-140	14.25	24	18.75	1.13	4	22



Light-Duty Galvanized



PART NUMBER	ID/NS
84-020	2
84-025	2.5
84-030	3
84-035	3.5
84-040	4
84-045	4.5
84-050	5
84-056	5.56
84-060	6
84-066	6.63
84-080	8

Heavy-Duty Carbon Steel



PART NUMBER	ID/NS	WEIGHT
84HD-080	8	5
84HD-086	8.63	6
84HD-100	10	7
84HD-108	10.75	8
84HD-120	12	9
84HD-128	12.75	10
84HD-140	14	26
84HD-160	16	29
84HD-180	18	43
84HD-200	20	64
84HD-220	22	72
84HD-240	24	84
84HD-260	26	88
84HD-280	28	94
84HD-300	30	99

Light-Duty 304 Stainless Steel



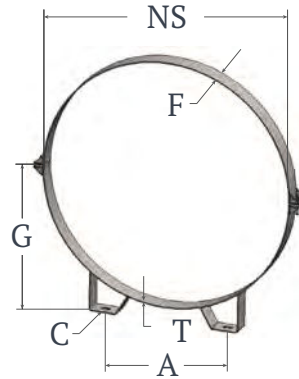
PART NUMBER	ID/NS
84-020-S4	2
84-025-S4	2.5
84-030-S4	3
84-035-S4	3.5
84-040-S4	4
84-045-S4	4.5
84-050-S4	5
84-056-S4	5.56
84-060-S4	6
84-066-S4	6.63
84-080-S4	8

Heavy-Duty 304 Stainless Steel



PART NUMBER	ID/NS	WEIGHT
84HD-080-S4	8	5
84HD-086-S4	8.63	6
84HD-100-S4	10	7
84HD-108-S4	10.75	8
84HD-120-S4	12	9
84HD-128-S4	12.75	10
84HD-140-S4	14	26
84HD-160-S4	16	29
84HD-180-S4	18	43
84HD-200-S4	20	64
84HD-220-S4	22	72
84HD-240-S4	24	84
84HD-260-S4	26	88
84HD-280-S4	28	94
84HD-300-S4	30	99

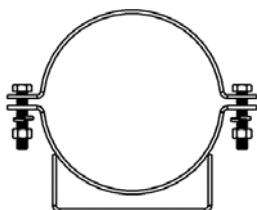
ROUND MOUNTING BRACKETS



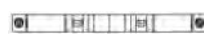
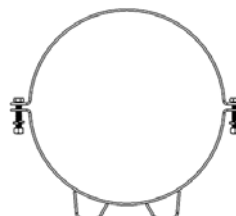
Two Piece Construction

PART NUMBER	NS	A	C	F	G	T	WEIGHT	TYPE
85-060-ST	6	4.00	0.41X0.79	1.25	3.69	0.125	2.00	A
85-080-ST	8	4.00	0.41X0.79	1.25	5.14	0.125	2.50	A
85-100-ST	10	4.25	0.41X0.79	1.25	6.01	0.125	3.00	B
85-120-ST	12	5.00	0.41X0.79	1.25	6.96	0.125	3.50	B
85-140-ST	14	7.00	0.56X1.06	1.25	7.83	0.125	4.00	B
85-160-ST	16	7.80	0.56X1.06	1.25	8.76	0.125	4.50	B
85-180-ST	18	9.00	0.56X1.06	2.5	11.03	0.125	10.00	C
85-200-ST	20	10.00	0.56X1.06	2.5	11.91	0.125	10.50	C
85-220-ST	22	11.00	0.56X1.06	2.5	12.82	0.125	11.00	C
85-240-ST	24	12.00	0.69X1.56	2.5	14.34	0.19	14.00	C
85-260-ST	26	13.00	0.69X1.56	2.5	15.28	0.19	15.00	C
85-280-ST	28	14.00	0.69X1.56	2.5	16.20	0.19	16.00	C
85-300-ST	30	14.80	0.69X1.56	4.0	17.33	0.19	26.00	C
85-360-ST	36	18.00	0.69X1.56	4.0	19.93	0.19	29.00	C
85-420-ST	42	20.50	1.06X2.06	4.0	23.85	0.19	35.00	C
85-450-ST	45	22.00	1.06X2.06	4.0	25.18	0.19	36.00	C
85-480-ST	48	23.60	1.06X2.06	4.0	26.47	0.19	38.00	C

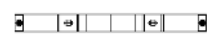
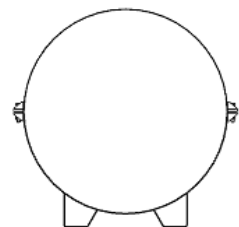
NS = Nominal Size | A = Slot Distance | C = Slot Size | F = Width | G = Height | T = Thickness | WT = Weight



TYPE A



TYPE B



TYPE C

FULL CIRCLE, U-BOLT

Full Circle



PART NUMBER	NS	WT
86-030	3	0.40
86-035	3.5	0.50
86-040	4	0.60
86-045	4.5	0.70
86-050	5	0.75
86-060	6	0.80
86-080	8	1.00
86-100	10	1.25
86-120	12	1.50
86-140	14	1.60

U-Bolt



PART NUMBER	NS
87-020	2
87-025	2.5
87-030	3
87-035	3.5
87-040	4
87-050	5
87-060	6
87-080	8
87-100	10

FLAT BAND, STACK BREAKER

Flat Band Clamps



PART NUMBER	NS
88-020-S4	2
88-025-S4	2.5
88-030-S4	3
88-035-S4	3.5
88-040-S4	4
88-050-S4	5
88-060-S4	6
88-080-S4	8
88-100-S4	10

Stack Breaker Clamps



PART NUMBER	NS	WEIGHT
89-020	2	0.17
89-025	2.5	0.20
89-030	3	0.22
89-035	3.5	0.25
89-040	4	0.28
89-050	5	0.33
89-060	6	0.39



**Example of a
U-Bolt Clamp**



**Example of a Round
Mounting Bracket**

- Please review the quotation/order when received to ensure accuracy on agreed price and lead time.
- Multiple parts and/or large quantity parts may extend lead times.
- Custom parts that are quoted and then ordered are non-refundable, non-restockable, and non-returnable.
- Freight is Ex Works (EXW) Factory.
- Minimum order \$50.

Delivery from inExhaust™, hereafter referred to as Manufacturer, is defined as the date/time the equipment leaves the Manufacturer's shipping dock.

Manufacturer provides two options for shipping terms. **By default, the Manufacturer shall choose Option 1 unless directed by the Purchaser or otherwise specified.**

OPTION 1

Shipment is Ex Works (EXW) Factory, Freight Prepaid & Add

- a) The Manufacturer pays and invoices Purchaser for freight charges
- b) The Purchaser assumes the title and control of the equipment at the moment the carrier signs the bill of lading
- c) The Manufacturer reserves the right to select the freight carrier
- d) The Purchaser is responsible for filing and settling claims for loss or damage of equipment

OPTION 2

Shipment is Ex Works (EXW) Origin Freight Collect.

- a) The Purchaser pays and bears the freight charges
 - b) The Purchaser assumes title and control of the equipment at the moment the carrier signs the bill of lading
 - c) The Purchaser is responsible for filing and settling claims for loss or damage of equipment
- All drawings and documents furnished to Purchaser by the Manufacturer is the work product of the Manufacturer who shall be deemed the author and shall retain all common law, statutory law and other rights of ownership, including copyrights. Purchaser may make and retain copies for informational purposes only.
 - The Manufacturer will endeavor to make shipment of orders as scheduled whenever possible. However, all shipment dates are approximate only, and the Manufacturer reserves the right to adjust shipment schedules at its sole discretion.

UNDER NO CIRCUMSTANCES WILL THE MANUFACTURER BE RESPONSIBLE OR INCUR ANY LIABILITY FOR COSTS OR DAMAGES OF ANY NATURE (WHETHER GENERAL, CONSEQUENTIAL, AS A PENALTY OR LIQUIDATED DAMAGES, OR OTHERWISE) ARISING OUT OF OR OWING TO ANY DELAYS IN DELIVERY.

Origin Freight Collect Delay of Shipment

When the equipment is ready for shipment and shipment is delayed or postponed through any causes, or at Purchaser's request, the Purchaser shall:

- Pay the Manufacturer's invoice for the equipment as per payment terms,



CONTINUED

- Arrange for storage of the equipment covered by this agreement other than at the Manufacturer's facility, unless by separate written agreement the Manufacturer shall agree to store the equipment and the charges for such storage.
- The Manufacturer warrants to the Purchaser that it will repair or replace at Manufacturer's option, any equipment, or parts of equipment, which, in the Manufacturer's judgment is defective in material or workmanship for a period of one (1) year after the date of shipment from the Manufacturer's facility.
- Equipment, accessories and other parts and components not manufactured by the Manufacturer are warranted only to the extent of and by the original manufacturer's warranty to the Manufacturer, and in no event shall such other manufacturer's warranty create any more extensive obligations of the Manufacturer to the Purchaser than the Manufacturer's warranty covering equipment manufactured by the Manufacturer.

NOTE: Upon receipt of shipment, customer is responsible for inspection of items. Most carriers require immediate notification of damage.

This means inspection must be made at time of delivery and any damage must be noted on the carrier's paperwork. A signature without mention of damage is considered "clear" by the carrier and will not be covered under insurance.

Any missing or damaged goods must be reported in writing to the vendor within 30 days from date of receipt. Lack of notification within 30 days will be considered as complete and satisfactory delivery of goods.

Thank you for choosing inExhaust as your exhaust system components solution!
For any questions, please contact us at sales@inExhaust.com.

inExhaust™ reserves the right to change the contents without notice. We do make every effort to have the most recent documents on our website. For latest revision please contact inExhaust™.

This document is also available on our website: www.inExhaust.com

inExhaust™, hereafter referred to as Manufacturer, warrants to the Purchaser that it will repair or replace at the Manufacturer's option, any equipment, or parts of equipment, which, in the Manufacturer's judgment is defective in material or workmanship for a period of one (1) year after the date of shipment from the Manufacturer's facility.

Defects or failure due to improper or careless storage, handling, installation, non-manufacturing welding/hot-work, application, testing/cycling without correct amount of time to allow system to warm up stabilize, evaporate combustion moisture and improper moisture draining either from condensation, emission or environmental introduction of moisture inside exhaust components exclude Manufacturer from upholding the warranty.

Other exclusions include undisclosed/unspecified/alternate application, or corrosion accelerated due to smog, salinity, or other corrosive environments or combustion emissions (i.e. alternative fuel sources), poor or inadequate maintenance, or acts of God.

Damage from backfires, or from other malfunctioning engine conditions is not covered. Damage from excessive exhaust temperature beyond information provided at time of quote is not covered. For exhaust temperatures near 1000F or higher purchaser must disclose intention to externally insulate exhaust products especially with carbon steel as material of construction. Damage from other chemical or flammable substances encountering exhaust products is not covered.

Equipment, accessories and other parts and components sold by but not manufactured by the Manufacturer are warranted only to the extent of and by the original manufacturer's warranty to the Manufacturer, and in no event shall such other manufacturer's warranty create any more extensive obligations of the Manufacturer to the Purchaser other than the Manufacturer's warranty covering equipment manufactured by the Manufacturer. Manufacturer does not warrant any labor for removal, re-installation or maintenance of components.

SHIPPING

Manufacturer will endeavor to make shipment of orders as scheduled. However, all shipment dates are approximate only, and the Manufacturer reserves the right to adjust shipment schedules at its sole discretion.

No liability is accepted for return transportation charges, following the repair or replacement, or for re-installation cost. No other expressed or implied warranties exist in the absence of special written agreement between the consumer and Manufacturer.

Under no circumstances will the Manufacturer be responsible or incur any liability for costs or damages of any nature (whether general, consequential, as a penalty or liquidated damages, or otherwise) arising out of or owing to any delays in delivery.

THE MANUFACTURER SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, DELAY OR CONSEQUENTIAL DAMAGES, OR FOR LOSS, DAMAGE OR EXPENSE, DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF THE EQUIPMENT, SPARE OR REPLACEMENT PARTS, OR FROM ANY OTHER CAUSE WHETHER BASED ON WARRANTY (EXPRESSED OR IMPLIED) OR TORT OR CONTRACT AND THE MANUFACTURER'S TOTAL LIABILITY SHALL NOT EXCEED THE PURCHASE PRICE, regardless of any advices or recommendations that may have been rendered concerning the purchase, installation or use of the equipment.



CONTINUED

GOVERNING LAW

This agreement is made and entered in the State of Nebraska, County of Lancaster, and shall be construed and interpreted in accordance with the laws of the State of Nebraska (including the provisions of the Nebraska Uniform Commercial Code), without regard to its conflict of law's provisions. Regarding any disputes which arise hereunder, Purchaser hereby submits to the exclusive jurisdiction and venue of the District Court of Lancaster County, Nebraska or the United States District Court for the District of Nebraska. Purchaser also agrees not to bring any action or proceeding arising out of this Agreement in any other court or jurisdiction. Purchaser waives any defense of inconvenient forum to the maintenance of any action or proceeding so brought and waives any bond, surety, or other security that might be required of the Manufacturer.

RETURN POLICY

Written notice must be given to Manufacturer immediately upon discovery of any defect. All returned products must be pre-approved in writing by Manufacturer and all return shipments must be prepaid by the Purchaser Ex Works (EXW) and identified with Return Material Authorization (RMA) number issued by Manufacturer. A 35% restocking fee will be made on goods returned within 6 months of shipment.

All defective products must be returned to receive a no-cost replacement. If defective components are not returned, Purchaser must pay for replacement. This can only be subjugated by written approval from the Manufacturer.

NOTE: Upon receipt of shipment, customer is responsible for inspection of items. Most carriers require immediate notification of damage. This means inspection must be made at time of delivery and any damage must be noted on the carrier's paperwork. A signature without mention of damage is considered "clear" by the carrier and will not be covered under insurance.

Any missing or damaged goods must be reported in writing to the vendor within 30 days from date of receipt. Lack of notification within 30 days will be considered as complete and satisfactory delivery of goods.

See Terms & Conditions for details.

Thank you for choosing inExhaust as your exhaust system components solution!
For any questions, please contact us at sales@inExhaust.com.

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We are proud to announce that our Lincoln, Nebraska facility achieved ISO 2001:2015 certification on October 23, 2018!





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