



tilton®

CHOSEN
BY
WINNERS
SINCE
1972



In 1972

, Mac and Adelle Tilton founded Tilton Engineering in El Segundo, California. Their mission was to supply innovative, high-quality products at fair prices and with sound advice. Mac utilized his vast racing and machining experience, most notably as Crew Chief for the Trans Am championship-winning Brock Racing Enterprises (BRE) team, to develop some of the most innovative products of their time. Adelle's excellent business sense and experience helped to ensure the long-term future of Tilton Engineering.

As Tilton Engineering's reputation grew, demand for their products increased. Tilton relocated in 1979 to a larger facility in Buellton, California where it is still located today. Tilton produces a wide range of driveline and brake components, in-cockpit controls and starter motors. Driveline components include clutches, flywheels, bellhousings and hydraulic release bearings. Brake components and in-cockpit controls include master cylinders, balance bars, pedal assemblies, proportioning valves and related accessories. Super Starters by Tilton were introduced in 1981 as the first high-torque mini-starters for racing and are offered for an array of applications.

Of the numerous innovations Tilton has brought to the racing world, most recognized is the carbon/carbon racing clutch. Tilton's was the first carbon/carbon clutch to be used in F1, winning its first race at the 1987 Detroit Grand Prix in Ayrton Senna's Lotus-Honda. The technology developed by Tilton can be found in most carbon/carbon racing clutches of today, and Tilton products are used worldwide in nearly every form of racing.

The top priority at Tilton Engineering is quality. Tilton products are designed by experienced engineers, using the latest solid modeling CAD and FEA software. Only the finest materials and processes are used to deliver the highest performance and most reliable products possible. 90% of Tilton's machined components are manufactured in-house using top-level equipment, including a Toyoda Horizontal Milling Center (HMC) and Mori Seiki lathes. After machining, products are quality checked using Browne and Sharpe Coordinate Measuring Machines (CMM) and tested using proprietary equipment.

A great product is nothing without great service behind it, and Tilton prides itself in providing excellent customer service. Experienced Tilton employees, most of whom have worked at Tilton for many years, are readily available to assist customers in selecting the most appropriate products and providing technical support. Tilton is supported by a worldwide network of dealers, who are the very best in the industry. These dealers know their customers' needs and make significant investments in inventory to serve them quickly. They, along with Tilton's employees, are there to provide the customer with top-level service and the best purchase experience possible.

After 40 years, Tilton Engineering is still motivated by the same mission as day one...

Innovation. Quality. Value. Support.



McLane (Mac) Tilton - President



Mac driving his Formula III car at the 1960 Watkins Glen Grand Prix



1968 BRE Datsun 2000 Team (Mac 3rd from left)



1969 BRE Datsun 2000 Team (Mac on right)



1971 BRE Datsun 510 Team (Mac 2nd from left)



Mac at the 1960 Limerock National driver's meeting

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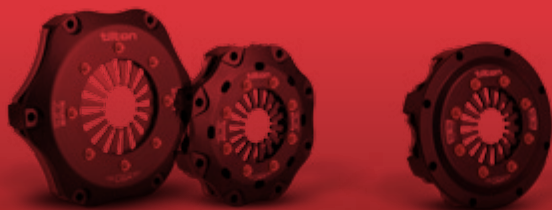
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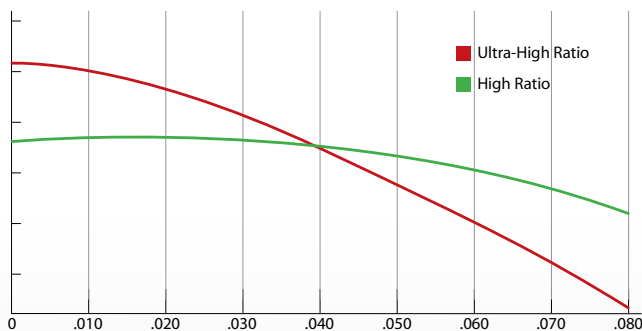
Metallic Clutches

Since 1972, Tilton clutches have grown to become some of the most widely used and successful clutches in racing. On any given weekend, Tilton OT-Series clutches can be found winning races, from the local race track to world renowned racing circuits. They have earned a reputation of providing the level of quality, performance and reliability needed to win championships!

OT-Series metallic race clutches offer the low moment-of-inertia, high torque capacity and the reliability for the most demanding racing applications. These features have made metallic clutches the most common clutch type used in road racing and circle track racing. Metallic clutches are not recommended for street use.

Pressure Plate Options

As standard, OT-Series clutches feature a High Ratio pressure plate that offers high clamp load over a wide wear range. As illustrated in the graphs below, the clamp load (torque capacity) of the High Ratio pressure plate is relatively flat until .030" (.76mm) of wear. As an option, 7.25" clutches are also available with an Ultra-High Ratio pressure plate. Ultra-High Ratio pressure plates provide 20% more clamp load and diaphragm spring travel (modulation) than High Ratio.



High Ratio Pressure Plate

- Standard pressure plate ratio for 5.5" & 7.25" clutches
- Short release travel for quick engagement and shifting
- Flat clamp load curve for longest wear range

Ultra-High Ratio Pressure Plate

- Optional pressure plate ratio for 7.25" clutches
- 20% more release travel than High Ratio for improved modulation
- 20% more clamp load than High Ratio for higher peak torque capacity
- Clamp load drops more quickly with wear than High Ratio

Features

Open, one-piece clutch cover design provides lower operating temperature, high strength and minimal deflection for quick shifting.

Chrome vanadium diaphragm springs and an engineered pressure plate geometry provide a high clamp load-to-wear ratio, low release load and quick shifting.

High-strength steel is used in both the pressure plates and the floater plates.

.104"-thick friction disc withstands elevated temperatures while providing low inertia and excellent wear resistance.

Hardened steel thrust buttons provide smooth and durable surface for pressure and floater plates.

Every Tilton OT clutch is dynamically balanced to ensure the highest level of performance.

Each OT clutch is individually inspected for proper assembly and balance, and initialed by the quality personnel as confirmation.



1, 2, & 3-plate

OT-II 7.25"

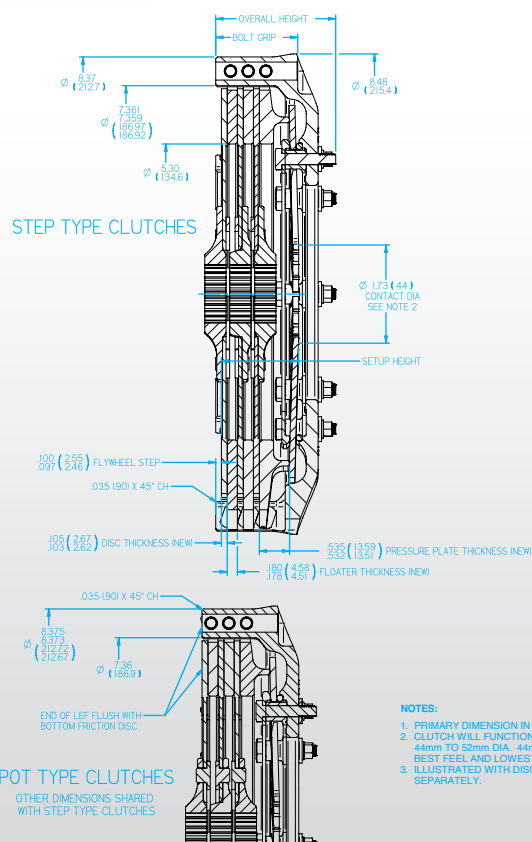
Clutch Size: **7.25" (185 mm)**Available Disc Count: **1, 2, & 3-Plate**Total Weight: **See Table**P/N: **See Table**

Typical Applications

- Road Racing
- Circle Track
- Open Wheel/Formula

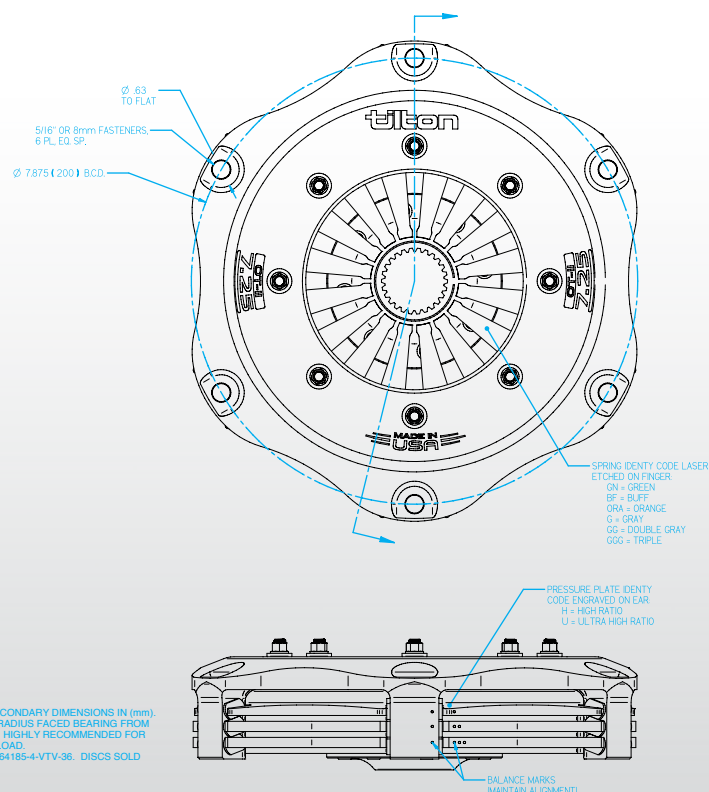
Six diaphragm spring rate options offer a wide range of torque capacities and release loads to tune the clutch for the application.

Two pressure plate ratio options offer different torque capacity and modulation characteristics.



NOTES:

1. PRIMARY DIMENSION IN INCHES. SECONDARY DIMENSIONS IN (mm).
2. CLUTCH WILL FUNCTION WITH ANY RADIUS FACED BEARING FROM 44mm TO 50mm DIA. 44mm BEARING HIGHLY RECOMMENDED FOR BEST FEEL AND LOWEST RELEASE LOAD.
3. ILLUSTRATED WITH DISC PACK P/N: 64185-4-VTV-36. DISCS SOLD SEPARATELY.



CLUTCH P/N	# OF DISCS	FLYWHEEL MOUNTING	SETUP HEIGHT (NEW)	SETUP HEIGHT (WORN)	BOLT GRIP	OVERALL HEIGHT
66-001	1	STEP	81 (20.6)	96 (24.4)	880 (22.35)	155 (39.4)
66-002	2	STEP	109 (27.7)	124 (31.5)	1159 (29.44)	183 (46.5)
66-012	2	POT	109 (27.7)	124 (31.5)	1059 (26.90)	173 (43.9)
66-003	3	STEP	137 (34.8)	152 (38.6)	1442 (36.63)	211 (53.6)
66-013	3	POT	137 (34.8)	152 (38.6)	1342 (34.08)	201 (50.8)
66-004	4	STEP	161 (40.9)	176 (44.7)	1725 (43.82)	239 (60.7)
66-014	4	POT	161 (40.9)	176 (44.7)	1625 (41.26)	229 (58.2)

Detailed Clutch Information

Clutch assemblies include clutch cover with diaphragm spring, pressure plate and floater plate(s).

	Torque Capacity (lb-ft/Nm)	Release Load* (lb/daN)	Weight** (lbs/kg)	M.O.I.** (lb-in ² /kg-m ²)	Pressure Plate (ratio)	Part Numbers
1-plate	200/272	400/180	5.1/2.3	44.1/.0130	High	66-001HW
	240/326	400/180	5.1/2.3	44.1/.0130	Ultra-high	66-001UW
	240/326	480/211	5.1/2.3	44.1/.0130	High	66-001HBF
	285/388	480/211	5.1/2.3	44.1/.0130	Ultra-high	66-001UBF
	280/381	560/247	5.1/2.3	44.1/.0130	High	66-001HORA
	335/456	560/247	5.1/2.3	44.1/.0130	Ultra-high	66-001UORA
	340/462	680/299	5.1/2.3	44.1/.0130	High	66-001HG
	410/558	680/299	5.1/2.3	44.1/.0130	Ultra-high	66-001UG
	380/517	760/334	5.1/2.3	44.1/.0130	High	66-001HGG
	455/619	760/334	5.1/2.3	44.1/.0130	Ultra-high	66-001UGG
	415/564	800/352	5.1/2.3	44.1/.0130	High	66-001HGGG
2-plate	400/544	400/180	7.5/3.4	66.3/.0195	High	66-002HW
	480/652	400/180	7.5/3.4	66.3/.0195	Ultra-high	66-002UW
	480/652	480/211	7.5/3.4	66.3/.0195	High	66-002HBF
	570/775	480/211	7.5/3.4	66.3/.0195	Ultra-high	66-002UBF
	560/762	560/247	7.5/3.4	66.3/.0195	High	66-002HORA
	670/911	560/247	7.5/3.4	66.3/.0195	Ultra-high	66-002UORA
	680/925	680/299	7.5/3.4	66.3/.0195	High	66-002HG
	820/1115	680/299	7.5/3.4	66.3/.0195	Ultra-high	66-002UG
	760/1034	760/334	7.5/3.4	66.3/.0195	High	66-002HGG
	910/1238	760/334	7.5/3.4	66.3/.0195	Ultra-high	66-002UGG
	830/1129	800/352	7.5/3.4	66.3/.0195	High	66-002HGGG
3-plate	720/979	480/211	9.9/4.5	87.6/.0258	High	66-003HBF
	855/1163	480/211	9.9/4.5	87.6/.0258	Ultra-high	66-003UBF
	840/1142	560/247	9.9/4.5	87.6/.0258	High	66-003HORA
	1005/1367	560/247	9.9/4.5	87.6/.0258	Ultra-high	66-003UORA
	1020/1387	680/299	9.9/4.5	87.6/.0258	High	66-003HG
	1230/1673	680/299	9.9/4.5	87.6/.0258	Ultra-high	66-003UG
	1140/1550	760/328	9.9/4.5	87.6/.0258	High	66-003HGG
	1365/1856	760/328	9.9/4.5	87.6/.0258	Ultra-high	66-003UGG
	1245/1693	800/330	9.9/4.5	87.6/.0258	High	66-003HGGG

Note: Unless noted, clutches listed are for use with "step-type" flywheels that have a .100" step for the friction surface.

Clutches are also available for "pot-type" (no step) flywheels. Contact Tilton for further information.

* Values listed are typical for release bearings with the recommended 44mm contact diameter. Larger contact diameters will increase release load.

** Weight and M.O.I. includes disc(s).

Service Parts

Pressure Plates	Part Numbers
7.25", high ratio	66-118HR
7.25", ultra-high ratio	66-118UHR
Floater Plate	Part Number
7.25", standard	66-119

3 & 4-plate

OT-II 7.25" Heavy Duty

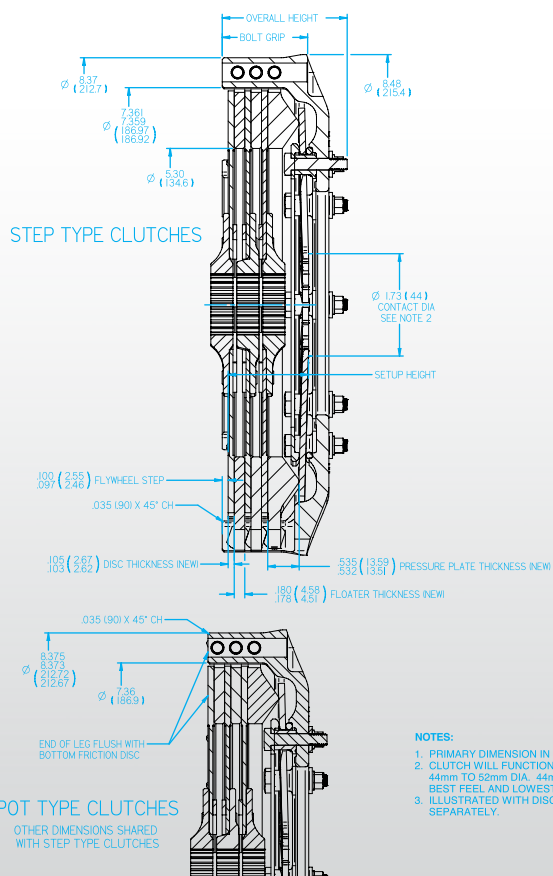
Clutch Size: **7.25" (185 mm)**Available Disc Count: **3 & 4-plate**Total Weight: **See Table**P/N: **See Table**

Typical Applications

- Off-Road
- Endurance
- Drifting
- Other applications that require additional heat capacity

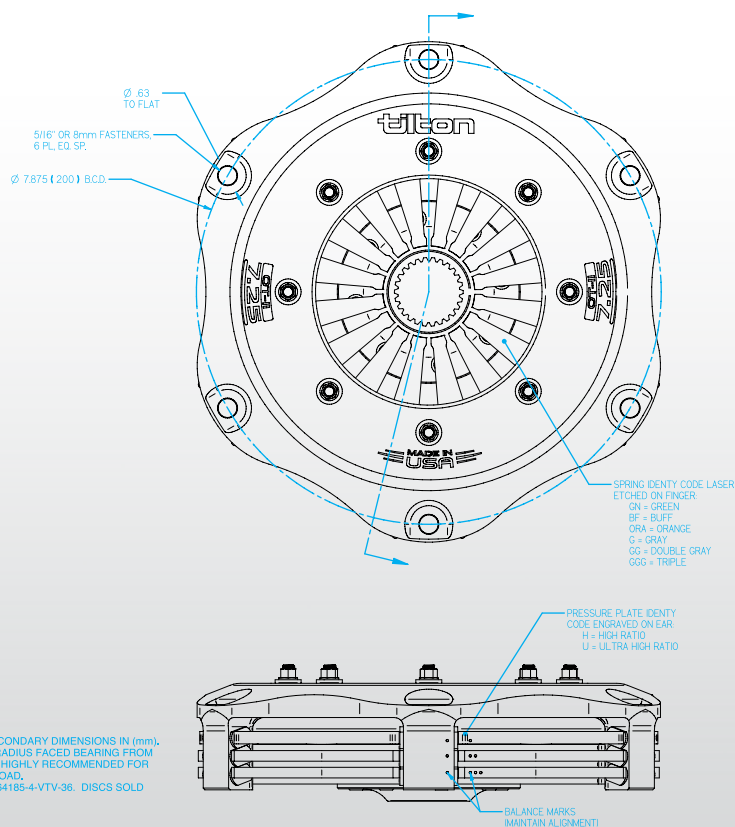
Four diaphragm spring rate options offer a wide range of torque capacities and release loads to tune the clutch for the application.

High-mass pressure plate provides additional heat capacity for severe applications.



NOTES:

1. PRIMARY DIMENSION IN INCHES. SECONDARY DIMENSIONS IN (mm).
2. CLUTCH WILL FUNCTION WITH ANY RADIUS FACED BEARING FROM 44mm TO 52mm DIA. 44mm BEARING HIGHLY RECOMMENDED FOR BEST FEEL AND LOWEST RELEASE LOAD.
3. ILLUSTRATED WITH DISC PACK P/N: 64185-4-VTV-36. DISCS SOLD SEPARATELY.



CLUTCH P/N	# OF DISCS	FLYWHEEL MOUNTING	SETUP HEIGHT NEW	SETUP HEIGHT WORKING	BOLT GRIP	OVERALL HEIGHT
66-503	3	STEP	1.37 (34.8)	1.52 (38.6)	1.442 (36.6)	2.11 (53.6)
66-513	3	POT	1.37 (34.8)	1.52 (38.6)	1.342 (34.0)	2.01 (51.0)
66-504	4	STEP	1.61 (40.9)	1.76 (44.7)	1.725 (43.8)	2.39 (60.7)
66-514	4	POT	1.61 (40.9)	1.76 (44.7)	1.625 (41.2)	2.29 (58.2)

Detailed Clutch Information

Clutch assemblies include clutch cover with diaphragm spring, pressure plate and floater plates.

	Torque Capacity	Release Load*	Weight**	M.O.I.**	Pressure Plate	Flywheel	Part Numbers
	(lb-ft/Nm)	(lb/daN)	(lbs/kg)	(lb-in ² /kg-m ²)	(ratio)	(type)	
3-plate	840/1142	560/247	10.6/4.8	94.6/.0278	High	Step	66-503HORA
	840/1142	560/247	10.6/4.8	94.6/.0278	High	Pot	66-513HORA
	1020/1387	680/299	10.6/4.8	94.6/.0278	High	Step	66-503HG
	1020/1387	680/299	10.6/4.8	94.6/.0278	High	Pot	66-513HG
	1140/1550	760/334	10.6/4.8	94.6/.0278	High	Step	66-503HGG
	1140/1550	760/334	10.6/4.8	94.6/.0278	High	Pot	66-513HGG
	1245/1693	800/352	10.6/4.8	94.6/.0278	High	Step	66-503HGGG
	1245/1693	800/352	10.6/4.8	94.6/.0278	High	Pot	66-513HGGG
4-plate	1120/1523	560/247	13.0/5.9	115.9/.0340	High	Step	66-504HORA
	1120/1523	560/247	13.0/5.9	115.9/.0340	High	Pot	66-514HORA
	1360/1850	680/299	13.0/5.9	115.9/.0340	High	Step	66-504HG
	1360/1850	680/299	13.0/5.9	115.9/.0340	High	Pot	66-514HG
	1520/2067	760/334	13.0/5.9	115.9/.0340	High	Step	66-504HGG
	1520/2067	760/334	13.0/5.9	115.9/.0340	High	Pot	66-514HGG
	1660/2257	800/352	13.0/5.9	115.9/.0340	High	Step	66-504HGGG
	1660/2257	800/352	13.0/5.9	115.9/.0340	High	Pot	66-514HGGG

Note: "Step-type" flywheels have a .100" step for the clutch's friction surface.

* Values listed are typical for release bearings with the recommended 44mm contact diameter. Larger contact diameters will increase release load.

** Weight and M.O.I. includes discs.

Service Parts

Pressure Plate	Part Number
7.25", high ratio, heavy-duty	66-158HR
Floater Plate	Part Number
7.25" standard	66-119

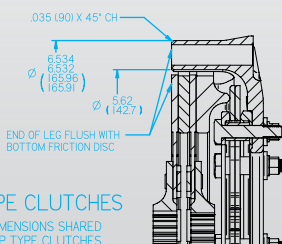
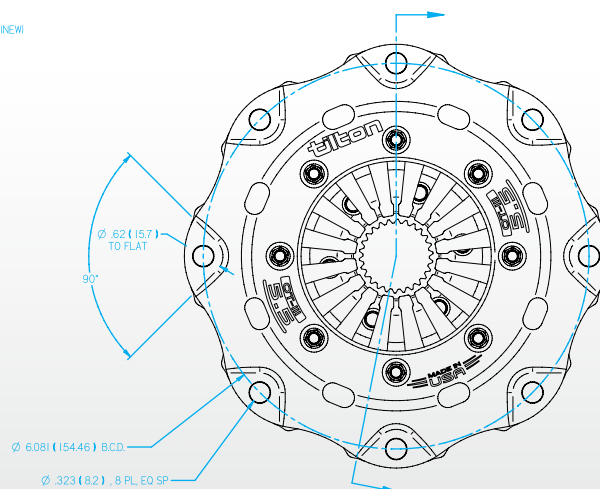
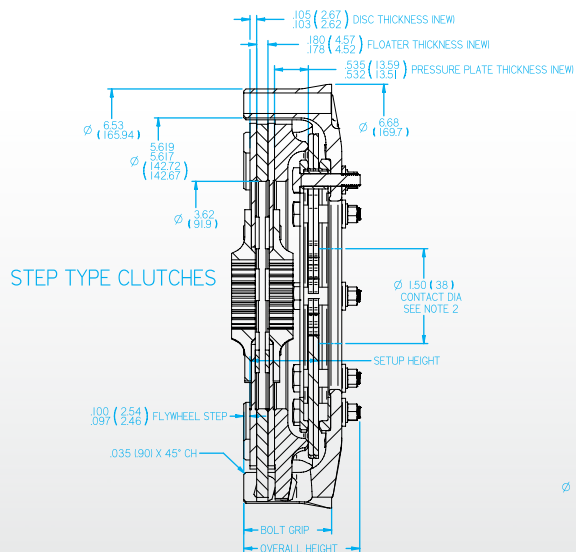
1, 2, 3, & 4-plate

OT-III 5.5"

Clutch Size: **5.5" (140 mm)**Available Disc Count: **1, 2, 3, & 4-plate**Total Weight: **See Table**P/N: **See Table**

Typical Applications

- Road Racing
- Circle Track
- Open Wheel
- Formula
- Short Course Off Road



NOTES:

1. PRIMARY DIMENSION IN INCHES. SECONDARY DIMENSIONS IN (mm).
2. CLUTCH WILL FUNCTION WITH ANY RADIUS FACED BEARING FROM 38mm TO 52mm DIA. 38mm BEARING HIGHLY RECOMMENDED FOR BEST FEEL AND LOWEST RELEASE LOAD.
3. ILLUSTRATED WITH DISC PACK P/N: 64140-9-AA-36. DISCS SOLD SEPARATELY.

CLUTCH P/N	# OF DISCS	FLYWHEEL MOUNTING	SETUP HEIGHT (NEW)	SETUP HEIGHT (WORN)	BOLT GRIP	OVERALL HEIGHT
67-001HG	1	STEP	.82 (20.8)	.94 (23.9)	1.02 (27.9)	1.58 (39.6)
67-002HG	2	STEP	1.10 (27.9)	1.22 (31.0)	1.36 (35.2)	1.94 (49.7)
67-003HG	3	STEP	1.38 (35.1)	1.50 (38.1)	1.66 (43.3)	2.12 (53.8)
67-013HG	3	POT	1.38 (35.1)	1.50 (38.1)	1.56 (39.6)	2.02 (51.3)
67-004HG	4	STEP	1.61 (40.9)	1.73 (43.9)	1.92 (49.5)	2.40 (61.0)
67-014HG	4	POT	1.61 (40.9)	1.73 (43.9)	1.82 (47.0)	2.30 (58.4)

Detailed Clutch Information

Clutch assemblies include clutch cover with diaphragm spring, pressure plate and floater plate(s).

	Torque Capacity (lb-ft/Nm)	Release Load* (lb/daN)	Weight** (lbs/kg)	M.O.I.** (lb-in ² /kg-m ²)	Pressure Plate (ratio)	Flywheel (type)	Part Numbers
1-plate	250/340	850/375	4.1/1.9	19.5/0057	High	Step	67-001HG
2-plate	500/680	850/375	5.7/2.6	29.8/0087	High	Step	67-002HG
3-plate	750/1020	850/375	7.3/3.3	40.1/0118	High	Step	67-003HG
	750/1020	850/375	7.3/3.3	40.1/0118	High	Pot	67-013HG
4-plate	1000/1360	850/375	8.9/4.0	50.4/0148	High	Step	67-004HG
	1000/1360	850/375	8.9/4.0	50.4/0148	High	Pot	67-014HG

Note: "Step-type" flywheels have a .100" step for the clutch's friction surface.

* Values listed are typical for release bearings with the recommended 38mm contact diameter. Larger contact diameters will increase release load.

** Weight and M.O.I. includes disc(s).

Service Parts

Pressure Plate	Part Number
5.5", high ratio	67-118HR
Floater Plate	Part Number
5.5", standard	67-119

3 & 4-plate

OT-III 5.5" Heavy Duty

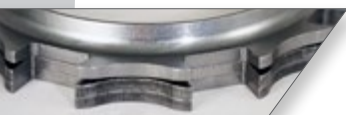
Clutch Size: **5.5" (140 mm)**Available Disc Count: **3 & 4-plate**Total Weight: **See Table**P/N: **See Table**

Typical Applications

- Road Racing
- Endurance Racing
- Short Course Off Road

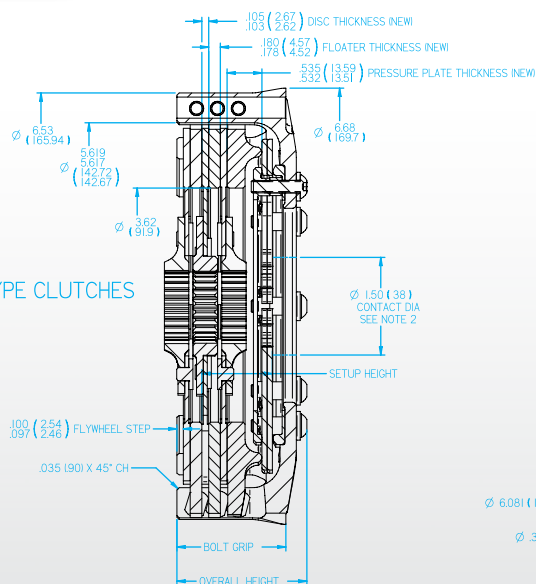


High-mass main pressure plate machined from proprietary material provides maximum heat capacity and resists warpage.



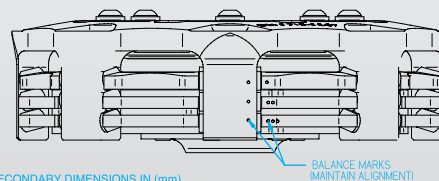
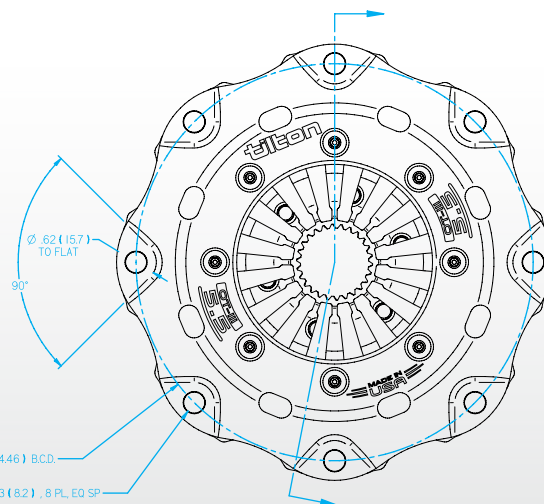
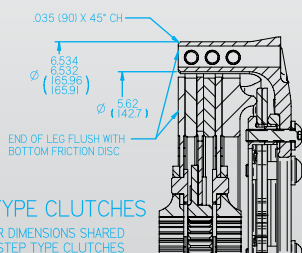
Unique geometry floater plates resist "pinching" due to extreme heat.

STEP TYPE CLUTCHES



POT TYPE CLUTCHES

OTHER DIMENSIONS SHARED WITH STEP TYPE CLUTCHES



NOTES:

1. PRIMARY DIMENSION IN INCHES. SECONDARY DIMENSIONS IN (mm).
2. CLUTCH WILL FUNCTION WITH ANY RADIUS FACED BEARING FROM 38mm TO 52mm DIA. 38mm BEARING HIGHLY RECOMMENDED FOR BEST FEEL AND LOWEST RELEASE LOAD.
3. ILLUSTRATED WITH DISC PACK P/N: 64140-9-ABA-36. DISCS SOLD SEPARATELY.

CLUTCH P/N	# OF DISCS	FLYWHEEL MOUNTING	SETUP HEIGHT (NEW)	SETUP HEIGHT (WORN)	BOLT GRIP	OVERALL HEIGHT
67-503HG	3	STEP	1.38 (35.1)	1.50 (38.1)	1.668 (43.37)	1.99 (50.5)
67-513HG	3	POT	1.38 (35.1)	1.50 (38.1)	1.568 (39.83)	1.89 (48.0)
67-504HG	4	STEP	1.61 (40.9)	1.73 (43.9)	1.952 (49.58)	2.27 (57.7)
67-514HG	4	POT	1.61 (40.9)	1.73 (43.9)	1.852 (47.04)	2.17 (55.1)

Detailed Clutch Information

Clutch assemblies include clutch cover with diaphragm spring, pressure plate and floater plates.

	Torque Capacity (lb-ft/Nm)	Release Load* (lb/daN)	Weight** (lbs/kg)	M.O.I.** (lb-in ² /kg-m ²)	Pressure Plate (ratio)	Flywheel (type)	Part Numbers
3-plate	750/1020	850/375	7.7 lbs (3.5)	42.4 (.0125)	High	Step	67-503HG
	750/1020	850/375	7.7 lbs (3.5)	42.4 (.0125)	High	Pot	67-513HG
4-plate	1000/1360	850/375	9.3 (4.2)	52.7 (.0154)	High	Step	67-504HG
	1000/1360	850/375	9.3 (4.2)	52.7 (.0154)	High	Pot	67-514HG

Note: "Step-type" flywheels have a .100" step for the clutch's friction surface.

* Values listed are typical for release bearings with the recommended 38mm contact diameter. Larger contact diameters will increase release load.

** Weight and M.O.I. includes discs.

Service Parts

Pressure Plates	Part Numbers
5.5", high ratio, heavy-duty	67-158HR
Floater Plate	Part Number
5.5", heavy-duty	67-159

4-plate

OT-III 5.5" Heavy Duty DP-SPEC

Clutch assemblies include clutch cover with diaphragm spring, pressure plate, floater plates and high-temp friction discs.



Clutch Size: **5.5" (140 mm)**

Available Disc Count: **4-Plate**

Total Weight: **9.3 lbs (4.2 kg)**

P/N: **67-504HG-DP**

Typical Applications

► Road Racing (DP)



High-mass main pressure plate, machined from proprietary warpage-resistant material.



Unique geometry floater plates manage heat from clutch slipping/modulation and resist "lock-up" on clutch cover legs.



Special friction disc compound offers additional heat capacity and resists material transfer onto floaters.



Clutch bedding service available. Provides consistent clutch engagement (feel) for the driver.

Working closely with Tilton's technical partner Wayne Taylor Racing, the DP-Spec clutch was designed for the extreme demands of the Daytona Prototype (DP) application. This clutch can also be used in other applications where a small diameter clutch needs to manage high temperatures due to high gearing and/or high grip during clutch engagement. In addition to the features of the standard Heavy Duty clutch, the DP-spec clutch utilizes a high-mass lower floater for heat management and special high-temp friction discs that prevent delamination and "welding" to floater plates.

As an option, Tilton offers a clutch bedding service at the factory. This service helps provide consistent engagement (feel) for the driver.

Service Parts

Pressure Plates	Part Numbers
5.5", high ratio, heavy duty	67-158HR
Floater Plate	Part Numbers
5.5", heavy duty	67-159
5.5", bottom floater (for 66-504HG-DP clutch only)	67-119R
Friction Discs	Part Number
5.5", 4 disc, 1 5/32" x 26 spline, high-temp	64140-6-ACCC-36



Sport Clutch

The new Sport 5.5 clutch is specifically designed with the budget racer in mind. These clutches share many of the same features as the successful OT-Series, but at a price point that fits many owner/drivers. The Sport 5.5 features a one-piece black-anodized billet cover assembly and like the OT-Series, discs are sold separately. The cover design enables direct replacement of many other driveline package clutches.

Designed for any race series utilizing a 5.5" metallic clutch, the Sport 5.5 is purpose built for demanding race series such as circle track, short course off-road, open wheel and road racing. Contact your Tilton distributor to learn more about how the Sport 5.5" clutch can fit in your application.

Features

Clutch cover accepts competition's cover-mount ring gears, enabling the Sport 5.5 to be retrofitted into their bellhousing/driveline packages.

Chrome vanadium diaphragm springs and an engineered pressure plate geometry provide a high clamp load-to-wear ratio, low release load and quick shifting.

Proprietary warpage-resistant material is used in both the pressure plates and the floater plates.

.104"-thick friction disc withstands elevated temperatures while providing low inertia and excellent wear resistance.

Hardened steel thrust buttons provide smooth and durable surface for pressure and floater plates.



2 & 3-plate

Sport 5.5"

Clutch Size: **5.5" (140 mm)**Available Disc Count: **2 & 3-Plate**Total Weight: **See Table**P/N: **See Table**

Typical Applications

- Road Racing
- Circle Track
- Open Wheel/Formula
- Short Course Off Road

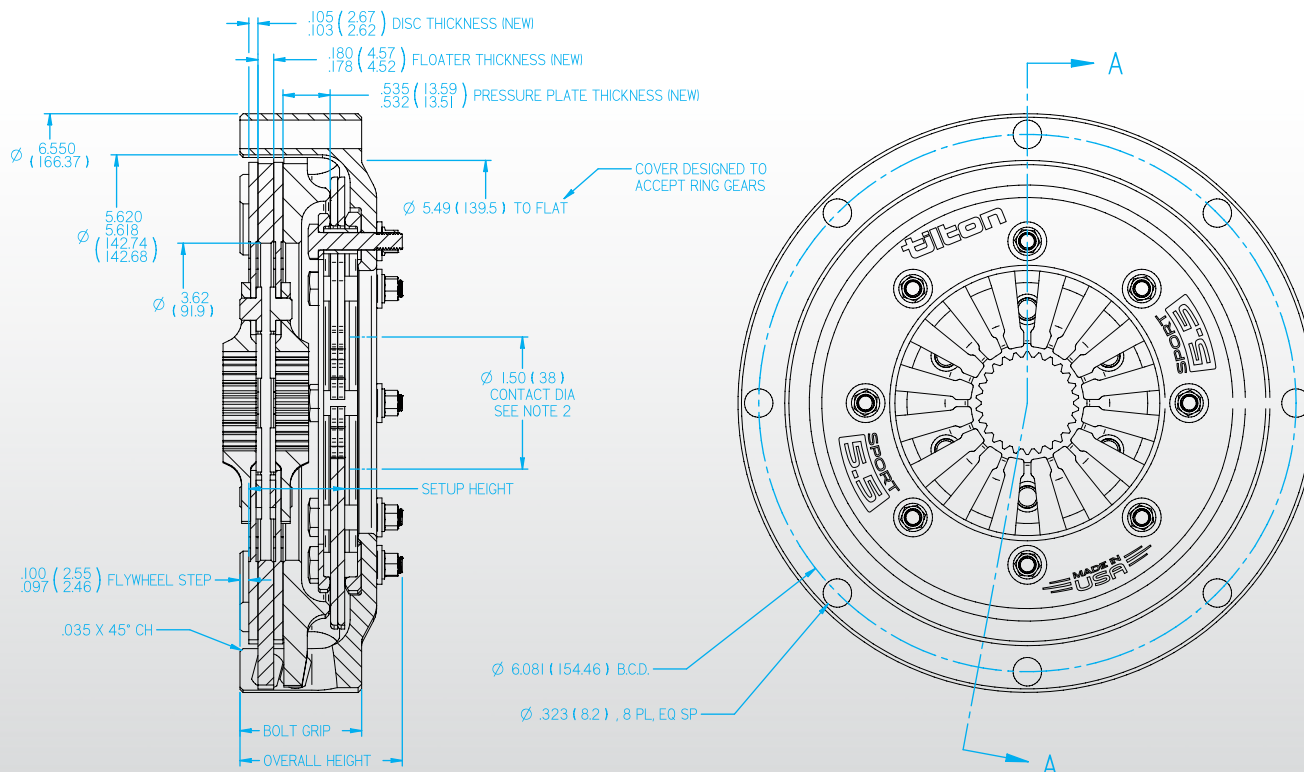
	Torque Capacity	Release Load*	Weight**	M.O.I.**	Pressure Plate	Flywheel	Part Numbers
	<i>lb-ft/Nm</i>	<i>lb/daN</i>	<i>lbs/kg</i>	<i>lb-in²/kg-m²</i>	<i>ratio</i>	<i>type</i>	
2-plate	500/680	850/375	6.0/2.7	32.0/.0094	High	Step	67-902HG
3-plate	750/1020	850/375	7.6/3.5	43.0/.0127	High	Step	67-903HG

Note: Unless noted, clutches listed are for use with "step-type" flywheel that have a .100" step for the friction surface.

* Values listed are typical for release bearings with the recommended 44mm contact diameter.

Larger contact diameters will increase release load.

** Weight and M.O.I. includes discs.



NOTES:

1. PRIMARY DIMENSION IN INCHES. SECONDARY DIMENSIONS IN (mm).
2. CLUTCH WILL FUNCTION WITH ANY RADIUS FACED BEARING FROM 38mm TO 52mm DIA. 38mm BEARING HIGHLY RECOMMENDED FOR BEST FEEL AND LOWEST RELEASE LOAD.
3. ILLUSTRATED WITH DISC PACK P/N: 64140-9-AA-36. DISCS SOLD SEPARATELY.

CLUTCH P/N	SETUP HEIGHT (NEW)	SETUP HEIGHT (WORN)	BOLT GRIP	OVERALL HEIGHT
67-902HG	1.10 (27.9)	1.22 (31.0)	1.375 (34.93)	1.84 (46.6)
67-903HG	1.38 (35.1)	1.50 (38.1)	1.655 (42.04)	2.12 (53.8)

Metallic Disc Packs

Tilton clutch friction discs are renowned for their durability, torque capacity and heat capacity. These discs are suited for race applications due to their quick engagement, long wear and consistent feel characteristics.

OT-Series metallic race clutches offer the low moment-of-inertia, high torque capacity and the reliability for the most demanding racing applications. These features have made metallic clutches the most common clutch type used in road racing and circle track racing. Metallic clutches are recommended solely for race track use.



Full-Circle / 6-rivet Metallic Clutch Discs

Standard disc that is suitable for most applications. Six friction pads provide maximum surface area for low wear rate and high heat capacity. Available for 7.25" and 5.5" clutches.

In the part number, these disc packs are designated by a "2" for 7.25" clutches and a "9" for 5.5" clutches.

Examples:

64185-2-A-36 (7.25" disc pack)

64140-9-A-36 (5.5" disc pack)



Full-Circle / 8-rivet Metallic Clutch Discs

Same as Full-Circle/6-rivet disc except hubs are attached with 8-rivets on a larger BCD for additional attachment strength for the most demanding applications. Available for 7.25" clutches.

In the part number, these disc packs are designated by a "4".

Example: 64185-4-V-36 (7.25" disc pack)



4-Paddle Metallic Clutch Discs

Lower inertia than full-circle discs, but have a slightly higher wear rate. The smooth radius between the friction segments also lowers core plate stress caused by misalignment between the engine & transmission and/or engine harmonics, minimizing core plate cracking. 7.25" discs feature an 8-rivet hub and 5.5" discs feature a 6-rivet hub.

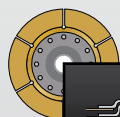
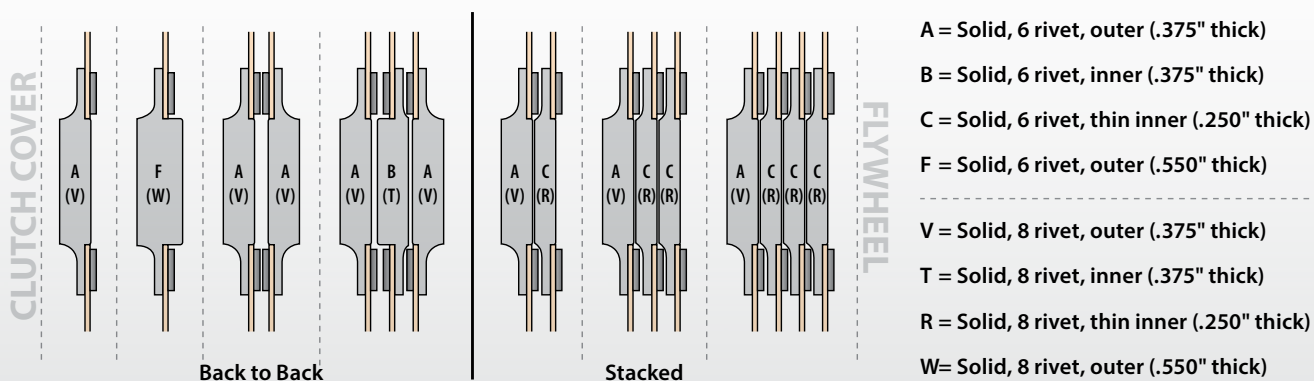
In the part number, these disc packs are designated by a "3".

Examples:

64185-3-V-36 (7.25" disc pack)

64140-3-A-36 (5.5" disc pack)

Hub Types

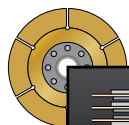


FULL CIRCLE NESTED 12-RIVET

7.25" Nested / 12-Rivet Metallic Disc Packs ("Nested" Hub Configuration for crank bolt clearance)		
Input Shaft Size (# of teeth x diameter)	1-plate	2-plate
20 x 7/8"	64185-2-H-25	64185-2-HJ-25
23 x 1" x 30 degree	64185-2-H-30	64185-2-HJ-30

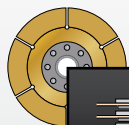
Disc Pack

7.25" 6-rivet



FULL CIRCLE

7.25" Full-Circle / 6-Rivet Metallic Disc Packs ("Back-to-Back" Hub Configuration)			
Input Shaft Size (# of teeth x diameter)	1-plate	2-plate	3-plate
10 x 7/8"	64185-2-A-03	64185-2-AA-03	N/A
10 x 1"	64185-2-F-04	64185-2-AA-04	64185-2-ABA-04
10 x 1 1/4"	64185-2-A-07	64185-2-AA-07	64185-2-ABA-07
10 x 1 1/8"	64185-2-F-06	64185-2-AA-06	64185-2-ABA-06
10 x 1 3/8"	64185-2-A-08	64185-2-AA-08	64185-2-ABA-08
10 x 29mm	64185-2-F-10	64185-2-AA-10	64185-2-ABA-10
10 x 35mm	64185-2-A-52	64185-2-AA-52	64185-2-ABA-52
14 x 25mm	64185-2-A-12	64185-2-AA-12	N/A
14 x 30.8mm	64185-2-A-14	64185-2-AA-14	64185-2-ABA-14
18 x 21mm	64185-2-F-17	64185-2-AA-17	N/A
18 x 1 3/16"	64185-2-A-19	64185-2-AA-19	64185-2-ABA-19
20 x 7/8"	64185-2-F-25	64185-2-AA-25	64185-2-ABA-25
21 x 29/32"	64185-2-A-26	64185-2-AA-26	64185-2-ABA-26
21 x 24mm	64185-2-F-27	64185-2-AA-27	64185-2-ABA-27
21 x 29mm	64185-2-A-28	64185-2-AA-28	64185-2-ABA-28
22 x 15/16"	64185-2-A-42	64185-2-AA-42	N/A
22 x 1"	64185-2-A-29	64185-2-AA-29	64185-2-ABA-29
22 x 29.4mm	64185-2-A-51	64185-2-AA-51	64185-2-ABA-51
23 x 1" x 30 degree	64185-2-F-30	64185-2-AA-30	64185-2-ABA-30
23 x 24mm x 25 degree	64185-2-A-41	64185-2-AA-41	64185-2-ABA-41
24 x 13/16"	64185-2-F-32	64185-2-AA-32	N/A
24 x 15/16"	64185-2-A-47	64185-2-AA-47	64185-2-ABA-47
24 x 1" (early Nissan)	64185-2-A-33	64185-2-AA-33	64185-2-ABA-33
24 x 1" (late Nissan)	64185-2-A-57	64185-2-AA-57	64185-2-ABA-57
24 x 26mm	64185-2-A-38	64185-2-AA-38	N/A
26 x 1 5/32"	64185-2-F-36	64185-2-AA-36	64185-2-ABA-36
26 x 35mm	64185-2-A-55	64185-2-AA-55	64185-2-ABA-55
28 x 7/8"	64185-2-F-39	64185-2-AA-39	N/A
29 x 1 1/4"	64185-2-A-46	64185-2-AA-46	64185-2-ABA-46



FULL CIRCLE

7.25" Full-Circle / 6-Rivet Metallic Disc Packs ("Stacked" Hub Configuration)			
Input Shaft Size (# of teeth x diameter)	1-plate	2-plate	3-plate
10 x 1 1/16"	64185-2-F-05	64185-2-AC-05	64185-2-ACC-05
10 x 35 mm	64185-2-A-52	64185-2-AC-52	64185-2-ACC-52
10 x 29mm	64185-2-F-10	64185-2-AC-10	64185-2-ACC-10
18 x 25/32"	64185-2-A-18	64185-2-AC-18	64185-2-ACC-18
20 x 7/8"	64185-2-F-25	64185-2-AC-25	64185-2-ACC-25
21 x 29/32"	64185-2-A-26	64185-2-AC-26	64185-2-ACC-26
23 x 1" x 30 degree	64185-2-F-30	64185-2-AC-30	64185-2-ACC-30
23 x 24mm x 25 degree	64185-2-A-41	64185-2-AC-41	64185-2-ACC-41
24 x 13/16"	64185-2-F-32	64185-2-AC-32	64185-2-ACC-32
24 x 1" (late Nissan)	64185-2-A-57	64185-2-AC-57	64185-2-ACC-57
26 x 22mm	64185-2-A-35	64185-2-AC-35	64185-2-ACC-35
26 x 1 5/32"	64185-2-F-36	64185-2-AC-36	64185-2-ACC-36
26 x 35mm	64185-2-A-55	64185-2-AC-55	64185-2-ACC-55

Disc Pack 7.25" 8-rivet



FULL CIRCLE

7.25" Full-Circle / 8-Rivet Metallic Race Disc Packs ("Back-to-Back" Hub Configuration)			
Input Shaft Size (# of teeth x diameter)	1-plate	2-plate	3-plate
10 x 1 1/8"	64185-4-V-06	64185-4-VV-06	64185-4-VTV-06
10 x 29mm	64185-4-V-10	64185-4-VV-10	64185-4-VTV-10
10 x 35mm	64185-4-V-52	64185-4-VV-52	64185-4-VTV-52
20 x 7/8"	64185-4-V-25	64185-4-VV-25	64185-4-VTV-25
23 x 1" x 30 degree	64185-4-W-30	64185-4-VV-30	64185-4-VTV-30
23 x 24mm x 25 degree	64185-4-V-41	64185-4-VV-41	N/A
26 x 1 5/32"	64185-4-V-36	64185-4-VV-36	64185-4-VTV-36
26 x 35mm	64185-4-V-55	64185-4-VV-55	64185-4-VTV-55
29 x 1 1/4"	64185-4-V-46	64185-4-VV-46	64185-4-VTV-46



FULL CIRCLE

7.25" Full-Circle / 8-Rivet Metallic Race Disc Packs ("Stacked" Hub Configuration)				
Input Shaft Size (# of teeth x diameter)	1-plate	2-plate	3-plate	4-plate
10 x 1 1/8"	64185-4-V-06	64185-4-VR-06	64185-4-VRR-06	N/A
10 x 29mm	64185-4-V-10	64185-4-VR-10	64185-4-VRR-10	N/A
23 x 1" x 30 degree	64185-4-W-30	64185-4-VR-30	64185-4-VRR-30	64185-4-VRRR-30
23 x 24mm x 25 degree	64185-4-V-41	64185-4-VR-41	64185-4-VRR-41	N/A
26 x 1 5/32"	64185-4-V-36	64185-4-VR-36	64185-4-VRR-36	64185-4-VRRR-36
29 x 1 1/4"	64185-4-V-46	64185-4-VR-46	64185-4-VRR-46	64185-4-VRRR-46



4-PADDLE

7.25" 4-Paddle / 8-Rivet Metallic Race Disc Packs ("Back-to-Back" Hub Configuration)			
Input Shaft Size (# of teeth x diameter)	1-plate	2-plate	3-plate
10 x 1 1/8"	64185-3-V-06	64185-3-VV-06	64185-3-VTV-06
10 x 29mm	64185-3-V-10	64185-3-VV-10	64185-3-VTV-10
10 x 35mm	64185-3-V-52	64185-3-VV-52	64185-3-VTV-52
20 x 7/8"	64185-3-W-25	64185-3-VV-25	64185-3-VTV-25
23 x 1" x 30 degree	64185-3-V-30	64185-3-VV-30	64185-3-VTV-30
23 x 24mm x 25 degree	64185-3-V-41	64185-3-VV-41	N/A
26 x 1 5/32"	64185-3-V-36	64185-3-VV-36	64185-3-VTV-36
26 x 35mm	64185-3-V-55	64185-3-VV-55	64185-3-VTV-55
29 x 1 1/4"	64185-3-W-46	64185-3-VV-46	64185-3-VTV-46



4-PADDLE

7.25" 4-Paddle / 8-Rivet Metallic Race Disc Packs ("Stacked" Hub Configuration)				
Input Shaft Size (# of teeth x diameter)	1-plate	2-plate	3-plate	4-plate
10 x 1 1/8"	64185-3-V-06	64185-3-VR-06	64185-3-VRR-06	N/A
10 x 29mm	64185-3-V-10	64185-3-VR-10	64185-3-VRR-10	N/A
23 x 1" x 30 degree	64185-3-W-30	64185-3-VR-30	64185-3-VRR-30	64185-3-VRRR-30
23 x 24mm x 25 degree	64185-3-V-41	64185-3-VR-41	64185-3-VRR-41	N/A
26 x 1 5/32"	64185-3-V-36	64185-3-VR-36	64185-3-VRR-36	64185-3-VRRR-36
29 x 1 1/4"	64185-3-V-46	64185-3-VR-46	64185-3-VRR-46	64185-3-VRRR-46

Disc Pack

5.5" 6-rivet



FULL CIRCLE

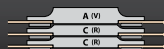


5.5" Full-Circle / 6-Rivet Metallic Race Disc Packs ("Back-to-Back" Hub Configuration)

Input Shaft Size (# of teeth x diameter)	1-plate	2-plate	3-plate
10 x 7/8"	64140-9-A-03	64140-9-AA-03	N/A
10 x 1"	64140-9-F-04	64140-9-AA-04	64140-9-ABA-04
10 x 1 1/4"	64140-9-A-07	64140-9-AA-07	64140-9-ABA-07
10 x 1 1/8"	64140-9-F-06	64140-9-AA-06	64140-9-ABA-06
10 x 1 3/8"	64140-9-A-08	64140-9-AA-08	64140-9-ABA-08
10 x 29mm	64140-9-F-10	64140-9-AA-10	64140-9-ABA-10
10 x 35mm	64140-9-A-52	64140-9-AA-52	64140-9-ABA-52
14 x 25mm	64140-9-A-12	64140-9-AA-12	N/A
14 x 30.8mm	64140-9-A-14	64140-9-AA-14	64140-9-ABA-14
18 x 21mm	64140-9-F-17	64140-9-AA-17	N/A
18 x 1 3/16"	64140-9-A-19	64140-9-AA-19	64140-9-ABA-19
20 x 7/8"	64140-9-F-25	64140-9-AA-25	64140-9-ABA-25
21 x 29/32"	64140-9-A-26	64140-9-AA-26	64140-9-ABA-26
21 x 24mm	64140-9-F-27	64140-9-AA-27	64140-9-ABA-27
21 x 29mm	64140-9-A-28	64140-9-AA-28	64140-9-ABA-28
22 x 15/16"	64140-9-A-42	64140-9-AA-42	N/A
22 x 1"	64140-9-A-29	64140-9-AA-29	64140-9-ABA-29
22 x 29.4mm	64140-9-A-51	64140-9-AA-51	64140-9-ABA-51
23 x 1" x 30 degree	64140-9-F-30	64140-9-AA-30	64140-9-ABA-30
23 x 24mm x 25 degree	64140-9-A-41	64140-9-AA-41	64140-9-ABA-41
24 x 13/16"	64140-9-F-32	64140-9-AA-32	N/A
24 x 15/16"	64140-9-A-47	64140-9-AA-47	64140-9-ABA-47
24 x 1" (early Nissan)	64140-9-A-33	64140-9-AA-33	64140-9-ABA-33
24 x 1" (late Nissan)	64140-9-A-57	64140-9-AA-57	64140-9-ABA-57
24 x 26mm	64140-9-A-38	64140-9-AA-38	N/A
26 x 1 5/32"	64140-9-F-36	64140-9-AA-36	64140-9-ABA-36
26 x 35mm	64140-9-A-55	64140-9-AA-55	64140-9-ABA-55
28 x 7/8"	64140-9-F-39	64140-9-AA-39	N/A
29 x 1 1/4"	64140-9-A-46	64140-9-AA-46	64140-9-ABA-46



FULL CIRCLE



5.5" Full-Circle / 6-Rivet Metallic Race Disc Packs ("Stacked" Hub Configuration)

Input Shaft Size (# of teeth x diameter)	1-plate	2-plate	3-plate	4-plate
10 x 1 1/16"	64140-9-F-05	64140-9-AC-05	64140-9-ACC-05	N/A
10 x 35 mm	64140-9-A-52	64140-9-AC-52	64140-9-ACC-52	N/A
10 x 29mm	64140-9-F-10	64140-9-AC-10	64140-9-ACC-10	N/A
18 x 25/32"	64140-9-A-18	64140-9-AC-18	64140-9-ACC-18	N/A
20 x 7/8"	64140-9-F-25	64140-9-AC-25	64140-9-ACC-25	N/A
21 x 29/32"	64140-9-F-26	64140-9-AC-26	64140-9-ACC-26	N/A
23 x 1" x 30 degree	64140-9-F-30	64140-9-AC-30	64140-9-ACC-30	64140-9-ACCC-30
23 x 24mm x 25 degree	64140-9-A-41	64140-9-AC-41	64140-9-ACC-41	N/A
24 x 13/16"	64140-9-F-32	64140-9-AC-32	64140-9-ACC-32	N/A
24 x 1" (late Nissan)	64140-9-A-57	64140-9-AC-57	64140-9-ACC-57	N/A
26 x 22mm	64140-9-A-35	64140-9-AC-35	64140-9-ACC-35	N/A
26 x 1 5/32"	64140-9-F-36	64140-9-AC-36	64140-9-ACC-36	64140-9-ACCC-36
26 x 35mm	64140-9-A-55	64140-9-AC-55	64140-9-ACC-55	N/A

Disc Pack 5.5" 6-rivet



4-PADDLE

5.5" 4-Paddle / 6-Rivet Metallic Race Disc Packs ("Back-to-Back" Hub Configuration)			
Input Shaft Size (# of teeth x diameter)	1-plate	2-plate	3-plate
10 x 7/8"	64140-3-A-03	64140-3-AA-03	N/A
10 x 1"	64140-3-F-04	64140-3-AA-04	64140-3-ABA-04
10 x 1 1/4"	64140-3-A-07	64140-3-AA-07	64140-3-ABA-07
10 x 1 1/8"	64140-3-F-06	64140-3-AA-06	64140-3-ABA-06
10 x 1 3/8"	64140-3-A-08	64140-3-AA-08	64140-3-ABA-08
10 x 29mm	64140-3-F-10	64140-3-AA-10	64140-3-ABA-10
10 x 35mm	64140-3-A-52	64140-3-AA-52	64140-3-ABA-52
14 x 25mm	64140-3-A-12	64140-3-AA-12	N/A
14 x 30.8mm	64140-3-A-14	64140-3-AA-14	64140-3-ABA-14
18 x 21mm	64140-3-F-17	64140-3-AA-17	N/A
18 x 1 3/16"	64140-3-A-19	64140-3-AA-19	64140-3-ABA-19
20 x 7/8"	64140-3-F-25	64140-3-AA-25	64140-3-ABA-25
21 x 29/32"	64140-3-A-26	64140-3-AA-26	64140-3-ABA-26
21 x 24mm	64140-3-F-27	64140-3-AA-27	64140-3-ABA-27
21 x 29mm	64140-3-A-28	64140-3-AA-28	64140-3-ABA-28
22 x 15/16"	64140-3-A-42	64140-3-AA-42	N/A
22 x 1"	64140-3-A-29	64140-3-AA-29	64140-3-ABA-29
22 x 29.4mm	64140-3-A-51	64140-3-AA-51	64140-3-ABA-51
23 x 1" x 30 degree	64140-3-F-30	64140-3-AA-30	64140-3-ABA-30
23 x 24mm x 25 degree	64140-3-A-41	64140-3-AA-41	64140-3-ABA-41
24 x 13/16"	64140-3-F-32	64140-3-AA-32	N/A
24 x 15/16"	64140-3-A-47	64140-3-AA-47	64140-3-ABA-47
24 x 1" (early Nissan)	64140-3-A-33	64140-3-AA-33	64140-3-ABA-33
24 x 1" (late Nissan)	64140-3-A-57	64140-3-AA-57	64140-3-ABA-57
24 x 26mm	64140-3-A-38	64140-3-AA-38	N/A
26 x 1 5/32"	64140-3-F-36	64140-3-AA-36	64140-3-ABA-36
26 x 35mm	64140-3-A-55	64140-3-AA-55	64140-3-ABA-55
28 x 7/8"	64140-3-F-39	64140-3-AA-39	N/A
29 x 1 1/4"	64140-3-A-46	64140-3-AA-46	64140-3-ABA-46



4-PADDLE

5.5" 4-Paddle / 6-Rivet Metallic Race Disc Packs ("Stacked" Hub Configuration)				
Input Shaft Size (# of teeth x diameter)	1-plate	2-plate	3-plate	4-plate
10 x 1 1/16"	64140-3-F-05	64140-3-AC-05	64140-3-ACC-05	N/A
10 x 35 mm	64140-3-A-52	64140-3-AC-52	64140-3-ACC-52	N/A
10 x 29mm	64140-3-F-10	64140-3-AC-10	64140-3-ACC-10	N/A
18 x 25/32"	64140-3-A-18	64140-3-AC-18	64140-3-ACC-18	N/A
20 x 7/8"	64140-3-F-25	64140-3-AC-25	64140-3-ACC-25	N/A
21 x 29/32"	64140-3-F-26	64140-3-AC-26	64140-3-ACC-26	N/A
23 x 1" x 30 degree	64140-3-F-30	64140-3-AC-30	64140-3-ACC-30	64140-3-ACCC-30
23 x 24mm x 25 degree	64140-3-A-41	64140-3-AC-41	64140-3-ACC-41	N/A
24 x 13/16"	64140-3-F-32	64140-3-AC-32	64140-3-ACC-32	N/A
24 x 1" (late Nissan)	64140-3-A-57	64140-3-AC-57	64140-3-ACC-57	N/A
26 x 22mm	64140-3-A-35	64140-3-AC-35	64140-3-ACC-35	N/A
26 x 1 5/32"	64140-3-F-36	64140-3-AC-36	64140-3-ACC-36	64140-3-ACCC-36
26 x 35mm	64140-3-A-55	64140-3-AC-55	64140-3-ACC-55	N/A

Clutch-Flywheel Assemblies

Metallic CFA



Tilton clutch-flywheel assemblies are designed to be a direct replacement for stock assemblies, retaining the same diameter (ring gear size) as originally equipped with the car.

Clutch-flywheel assemblies include an OT-Series metallic race clutch, disc pack, billet steel flywheel with integral ring gear, hydraulic release bearing assembly and related hardware.



	Application	Clutch Size	Discs	Weight	M.O.I.	Torque Capacity	Part Numbers
		(inches)	(count)	(lbs)	(lb-in ²)	(lb-ft)	
Clutch-Flywheel Assemblies	Chevy Corvette C5	7.25"	3	17.8	266	930	56-804
	Chevy Corvette C6	7.25"	3	17.8	266	930	56-807
	Mitsubishi EVO 7-9	7.25"	3	20.8	262	900	56-358
	Porsche 993/996/997	7.25"	2	15.4	188	500	56-813
	Porsche 993/996/997	5.5"	3	14.5	151	750	57-813



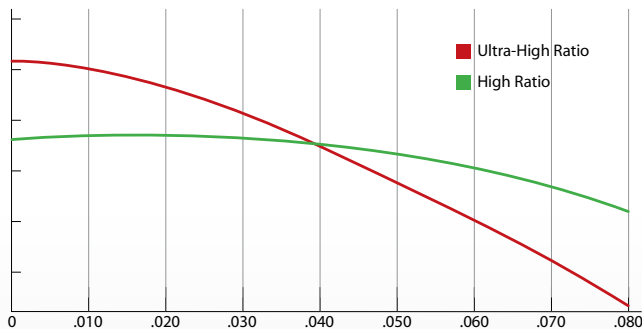
Cerametallic Clutches

Tilton OT-Series cerametallic clutches are primarily designed for racing applications where some clutch modulation is desired. OT-Series cerametallic clutches feature 4-paddle discs that utilize a unique blend of ceramic and metallic materials. Because the cerametallic discs are thicker than sintered metallic discs, they provide higher heat capacity through their increased mass.

In addition, the engagement characteristics of cerametallic clutches are smoother than sintered metallic clutches. These features have made cerametallic clutches popular in applications such as rally, hill climb, club racing, off road, and extreme street/strip applications.

Pressure Plate Options

As standard, OT-Series clutches feature a High Ratio pressure plate that offers high clamp load over a wide wear range. As illustrated in the graphs below, the clamp load (torque capacity) of the High Ratio pressure plate is relatively flat until .030" (.76mm) of wear. As an option, cerametallic clutches are also available with an Ultra-High Ratio pressure plate. Ultra-High Ratio pressure plates provide 20% more clamp load and diaphragm spring travel (modulation) than High Ratio.



High Ratio Pressure Plate

- Standard pressure plate ratio for 5.5" & 7.25" clutches
- Short release travel for quick engagement and shifting
- Flat clamp load curve for longest wear range

Ultra-High Ratio Pressure Plate

- Optional pressure plate ratio for 7.25" clutches
- 20% more release travel than High Ratio for improved modulation
- 20% more clamp load than High Ratio for higher peak torque capacity
- Clamp load drops more quickly with wear than High Ratio

Features

Open, one-piece clutch cover design provides lower operating temperature, high strength and minimal deflection for quick shifting.

Chrome vanadium diaphragm springs and an engineered pressure plate geometry provide a high clamp load-to-wear ratio, low release load and quick shifting.

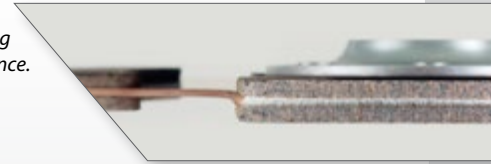
High-strength steel pressure and floater plates.

.283"-thick friction disc withstands elevated temperatures while providing low inertia and excellent wear resistance.

Hardened steel thrust buttons provide smooth and durable surface for pressure and floater plates.

Every Tilton OT clutch is dynamically balanced to ensure the highest level of performance.

Each OT clutch is individually inspected for proper assembly and balance, and initialed by the quality personnel as confirmation.



1 & 2-plate

OT-II 7.25"

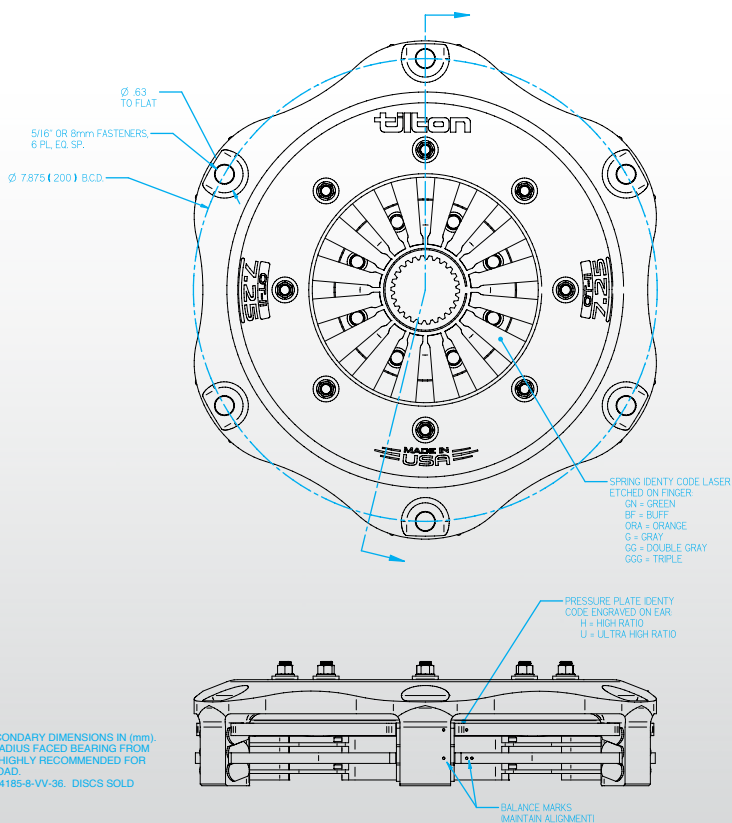
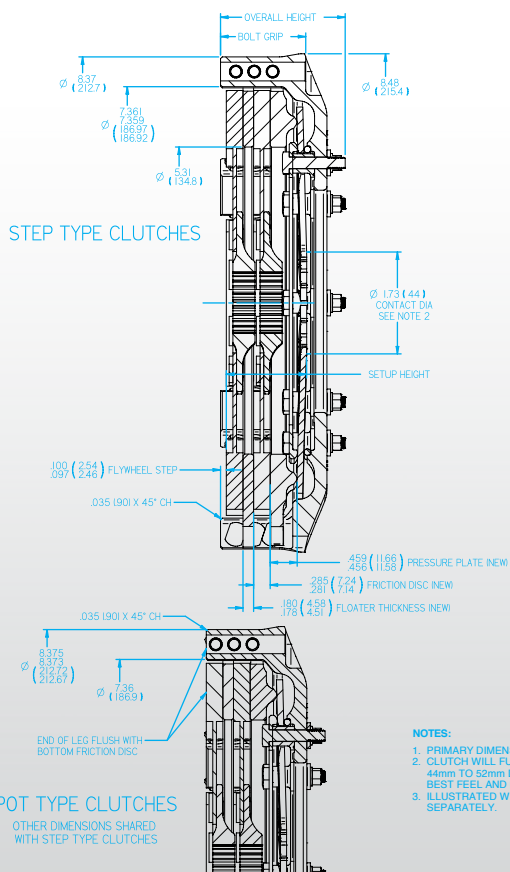
Clutch Size: **7.25" (185 mm)**Available Disc Count: **1 & 2-plate**Total Weight: **See Table**P/N: **See Table**

Typical Applications

- Rally
- Club Racing
- Road Racing
- Off-Road
- Extreme Street/Strip

Six diaphragm spring rate options offer a wide range of torque capacities and release loads to tune the clutch for the application.

Two pressure plate ratio options offer different torque capacity and modulation characteristics.



CLUTCH P/N	# OF DISCS	FLYWHEEL MOUNTING	SETUP HEIGHT (NEW)	SETUP HEIGHT (WORN)	BOLT GRIP	OVERALL HEIGHT
66-301	1	STEP	.91 (23.1)	.106 (26.9)	.884 (22.59)	1.65 (41.9)
66-311	1	POT	.91 (23.1)	.106 (26.9)	.884 (22.59)	1.55 (39.4)
66-302	2	STEP	1.37 (34.6)	1.52 (38.6)	1.442 (36.63)	2.11 (53.6)
66-312	2	POT	1.37 (34.6)	1.52 (38.6)	1.342 (34.09)	2.01 (51.1)

Detailed Clutch Information

Clutch assemblies include clutch cover with diaphragm spring, pressure plate and floater plate(s).

	Torque Capacity (lb-ft/Nm)	Release Load* (lb/daN)	Weight** (lbs/kg)	M.O.I.** (lb-in ² /kg-m ²)	Pressure Plate (ratio)	Part Numbers
1-plate	200/272	400/180	5.6/2.5	52.4/.0154	High	66-301HW
	240/326	400/180	5.6/2.5	52.4/.0154	Ultra-high	66-301UW
	240/326	480/211	5.6/2.5	52.4/.0154	High	66-301HBF
	285/388	480/211	5.6/2.5	52.4/.0154	Ultra-high	66-301UBF
	280/381	560/247	5.6/2.5	52.4/.0154	High	66-301HORA
	335/456	560/247	5.6/2.5	52.4/.0154	Ultra-high	66-301UORA
	340/462	680/299	5.6/2.5	52.4/.0154	High	66-301HG
	410/558	680/299	5.6/2.5	52.4/.0154	Ultra-high	66-301UG
	380/517	760/334	5.6/2.5	52.4/.0154	High	66-301HGG
	455/619	760/334	5.6/2.5	52.4/.0154	Ultra-high	66-301UGG
	415/564	800/352	5.6/2.5	52.4/.0154	High	66-301HGGG
2-plate	400/544	400/180	8.2/3.7	76.3/.0225	High	66-302HW
	480/652	400/180	8.2/3.7	76.3/.0225	Ultra-high	66-302UW
	480/652	480/211	8.2/3.7	76.3/.0225	High	66-302HBF
	570/775	480/211	8.2/3.7	76.3/.0225	Ultra-high	66-302UBF
	560/762	560/247	8.2/3.7	76.3/.0225	High	66-302HORA
	670/911	560/247	8.2/3.7	76.3/.0225	Ultra-high	66-302UORA
	680/925	680/299	8.2/3.7	76.3/.0225	High	66-302HG
	820/1115	680/299	8.2/3.7	76.3/.0225	Ultra-high	66-302UG
	760/1034	760/334	8.2/3.7	76.3/.0225	High	66-302HGG
	910/1238	760/334	8.2/3.7	76.3/.0225	Ultra-high	66-302UGG
	830/1129	800/352	8.2/3.7	76.3/.0225	High	66-302HGGG

Note: Unless noted, clutches listed are for use with "step-type" flywheel that have a .100" step for the friction surface.

Clutches are also available for "pot-type" (no step) flywheels. Contact Tilton for further information and part numbers.

* Values listed are typical for release bearings with the recommended 44mm contact diameter. Larger contact diameters will increase release load.

** Weight and M.O.I. includes disc(s).

Service Parts

Pressure Plates	Part Numbers
7.25", high ratio	66-118HR-R
7.25", ultra-high ratio	66-118UHR-R
Floater Plate	Part Number
7.25", standard	66-119

Cerametallic Disc Packs

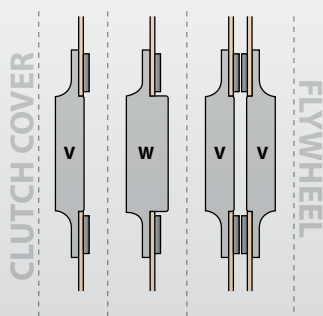
7.25" 8-rivet



4-PADDLE

7.25" 4-Paddle / 8-Rivet Cerametallic Disc Packs ("Back-to-Back" Hub Configuration)		
Input Shaft Size (# of teeth x diameter)	1-plate	2-plate
10 x 7/8"	64185-8-V-03	64185-8-VV-03
10 x 1"	64185-8-V-04	64185-8-VV-04
10 x 1 1/16"	64185-8-V-05	64185-8-VV-05
10 x 1 1/8"	64185-8-V-06	64185-8-VV-06
10 x 1 3/8"	64185-8-V-08	64185-8-VV-08
10 x 29mm	64185-8-V-10	64185-8-VV-10
10 x 35mm	64185-8-V-52	64185-8-VV-52
14 x 25mm	64185-8-V-12	64185-8-VV-12
14 x 30.8mm	64185-8-V-14	64185-8-VV-14
18 x 1 3/16"	64185-8-V-19	64185-8-VV-19
20 x 7/8"	64185-8-W-25	64185-8-VV-25
21 x 29/32"	64185-8-V-26	64185-8-VV-26
21 x 24mm	64185-8-V-27	64185-8-VV-27
21 x 29mm	64185-8-V-28	64185-8-VV-28
22 x 15/16"	64185-8-V-42	64185-8-VV-42
22 x 1"	64185-8-V-29	64185-8-VV-29
22 x 29.4mm	64185-8-V-51	64185-8-VV-51
23 x 1" x 30 degree	64185-8-W-30	64185-8-VV-30
23 x 24mm x 25 degree	64185-8-V-41	64185-8-VV-41
24 x 13/16"	64185-8-V-32	64185-8-VV-32
24 x 15/16"	64185-8-V-47	64185-8-VV-47
24 x 1" (early Nissan)	64185-8-V-33	64185-8-VV-33
24 x 1" (late Nissan)	64185-8-V-57	64185-8-VV-57
24 x 26mm	64185-8-V-38	64185-8-VV-38
26 x 1 5/32"	64185-8-W-36	64185-8-VV-36
26 x 35mm	64185-8-V-55	64185-8-VV-55
29 x 1 1/4"	64185-8-V-46	64185-8-VV-46

Hub Types



V = Solid, 8 rivet, outer (.375" thick)

W = Solid, 8 rivet, outer (.550" thick)

Clutch-Flywheel Assemblies

Cerametallic CFA



Tilton clutch-flywheel assemblies are designed to be a direct replacement for stock assemblies, retaining the same diameter (ring gear size) as originally equipped with the car.

Clutch-flywheel assemblies include a 7.25" 2-plate OT-Series cerametallic clutch, disc pack, billet steel flywheel with integral ring gear and related hardware. Some kits also include a hydraulic release bearing, replacing the stock slave cylinder and release bearing-related linkage.



	Application	Clutch Size	Discs	Weight	M.O.I.	Torque Capacity	Part Numbers
		(inches)	(count)	(lbs)	(lb-in ²)	(lb-ft)	
Clutch-Flywheel Assemblies	Honda B16A/B18 (1992-on)	7.25"	2	18.6	231	840	56-300H
	Honda B16A/B18 (1992-on)	7.25"	2	18.6	231	480	56-308H
	Honda K20/K24	7.25"	2	14.9	178	840	56-309
	Honda K20/K24	7.25"	2	14.9	178	480	56-318
	Mitsubishi EVO 7-9 (5-spd)	7.25"	2	19.1	251	840	56-353*
	Subaru WRX/STI (2002-on)	7.25"	2	19.8	278	840	56-371**

* Includes hydraulic release bearing.

** Includes hydraulic release bearing, but requires master cylinder to be changed to a 3/4" bore. Contact Tilton Engineering for details.

Honda Hydraulic Release Bearing Kit

Designed specifically for use with Tilton 7.25" 2-plate cerametallic clutch-flywheel assemblies. Hydraulic release bearing mounts inside transmission case, eliminating the stock slave cylinder and related release bearing linkage. Provides better clutch modulation and lower pedal effort when compared to using the stock release bearing.

Includes hydraulic release bearing, Tilton 3/4"-bore master cylinder kit, master cylinder mounting bracket, pedal clevis, steel braided lines and fittings.



Description

HRB Kit

Part Number

Honda B16A/B18/K20/K24, 7.25" 2-plate cerametallic clutch

61-7770

CARBON/CARBON



Carbon/Carbon Clutches

Tilton Engineering invented the carbon/carbon racing clutch and patented the drive system in the mid-80's. It was the first carbon/carbon clutch ever to win a Formula One Grand Prix (Ayrton Senna's Lotus-Honda at the 1987 US Grand Prix in Detroit). Since then, Tilton OT-Series carbon clutches have been continually refined to be the best on the market. They have seen multiple victories in races worldwide, from the 24 Hours of Le Mans to the Baja 1000.

Utilizing the experience Tilton has gained over the last thirty-plus years, OT-Series carbon/carbon clutches have evolved to be second to none in quality. Each is built using the finest materials and the latest manufacturing processes while holding to strict quality control standards. As part of their build process, OT-Series carbon clutches are rigorously tested and documented before being delivered to the customer.

Tilton OT-Series carbon clutches offer a unique combination of an extremely low inertia, high torque capacity, high heat capacity and smooth engagement characteristics. Because of these features, they can be found used in road racing, endurance racing, off-road and high-performance street applications.

The carbon matrix plates (driven & floater) do not warp from heat, providing consistent shifting and minimizing heat-related clutch failures. The smooth engagement characteristics of the carbon plates provide good drivability and reduce "shock" to other driveline components. Through the use of additional pressure plates (shims) and periodic rebuilds, OT-Series carbon/carbon clutches offer long life under extreme-performance conditions.

Pressure Plate Options

As standard, OT-Series 4.5" and 5.5" carbon clutches feature a High Ratio pressure plate that offers high clamp load over a wide wear range. As illustrated in the graphs below, the clamp load (torque capacity) of the High Ratio pressure plate is relatively flat until .030" (.76mm) of wear. Ultra-High Ratio pressure plates, which are standard on 7.25" and optional on 5.5" carbon clutches, provide 20% more clamp load and diaphragm spring travel (modulation) than High Ratio pressure plates.

High Ratio Pressure Plate

- Standard pressure plate ratio for 4.5"/5.5" carbon clutches
- Short release travel for quick engagement and shifting
- Flat clamp load curve for longest wear range

Ultra-High Ratio Pressure Plate

- Optional pressure plate ratio for 5.5" carbon clutches.
- Standard pressure plate ratio for 7.25" carbon clutches.
- 20% more release travel than High Ratio for improved modulation
- 20% more clamp load than High Ratio for higher peak torque capacity
- Clamp load drops more quickly with wear than High Ratio

Features

Open, one-piece clutch cover design provides lower operating temperature, high strength and minimal deflection for quick shifting.



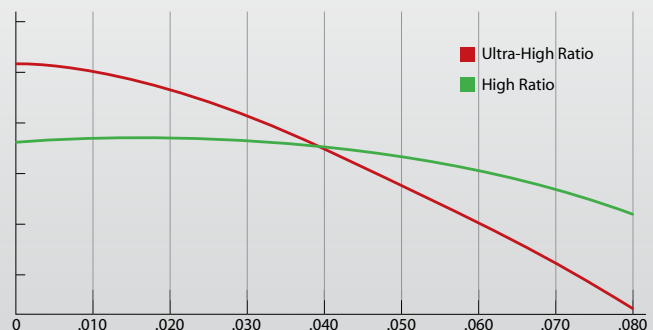
Individually clamp-load and dyno-tested before shipping.



Each clutch is assigned a unique serial number to clutch history through the Tilton database.



Steel pressure plate/shims are available in varying thicknesses, enabling customers to service clutches as carbon stack wears.



2, 3, & 4-plate

OT-II 7.25"

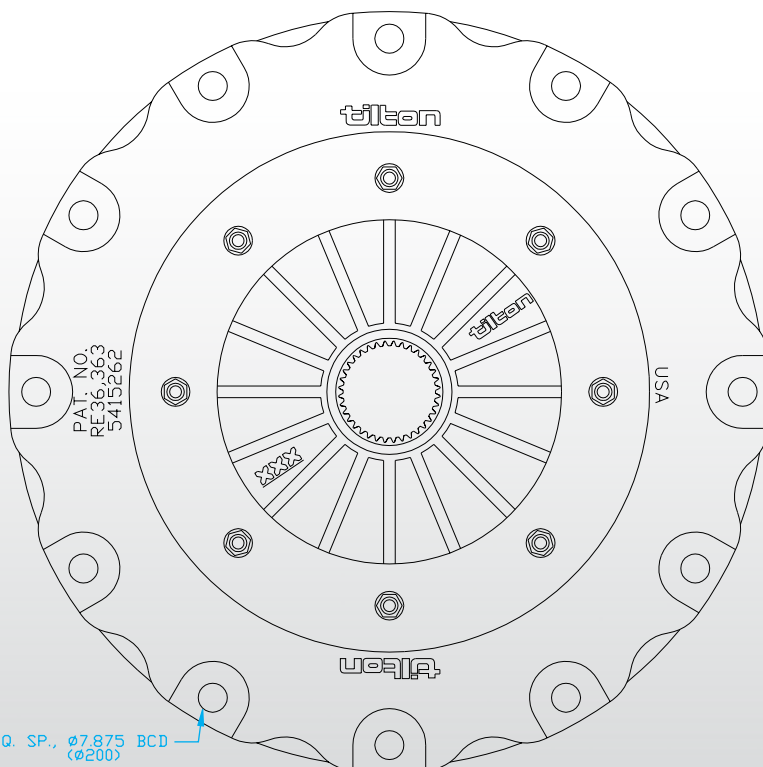
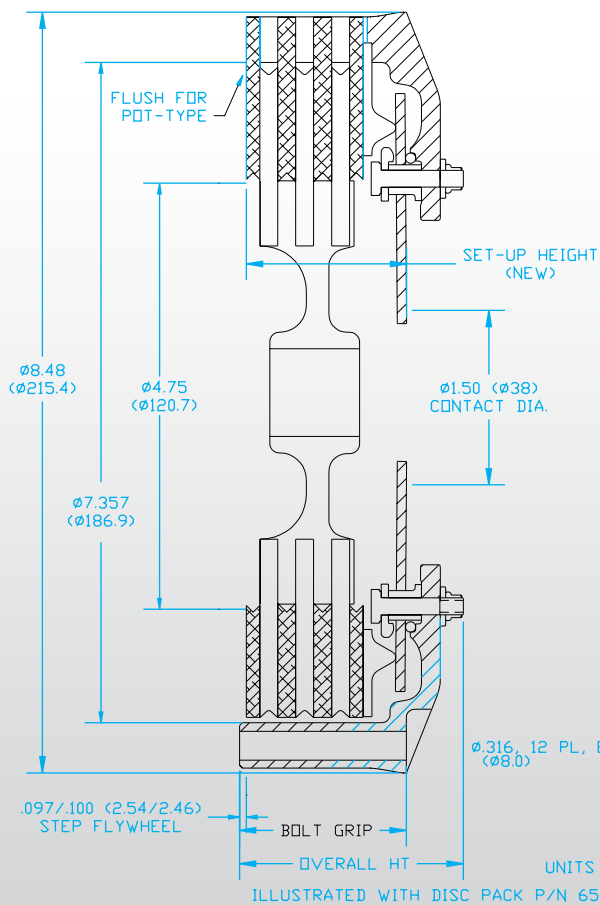
Clutch Size: **7.25" (185 mm)**Available Disc Count: **2, 3, & 4-plate**Total Weight: **See Table**P/N: **See Table**

Typical Applications

- Road racing
- Endurance
- Off-Road
- Extreme Street/Strip



Four diaphragm spring rate options offer a wide range of torque capacities and release loads to tune the clutch for the application.



CLUTCH PART #	SET-UP HEIGHT (NEW)	BOLT GRIP	OVERALL HT
6571xxx-x12	1.14 (29.0)	1.18 (30.0)	1.88 (47.8)
6572xxx-x12	1.44 (36.6)	1.48 (37.6)	2.18 (55.4)
6573xxx-x12	1.84 (46.7)	1.88 (47.8)	2.58 (65.5)
6574xxx-x12	2.24 (56.9)	2.28 (57.9)	2.98 (75.7)

Detailed Clutch Information

Clutch assemblies include clutch cover (with diaphragm spring), pressure plate, carbon floater plates, carbon discs and steel hub.

	Torque Capacity (lb-ft/Nm)	Release Load* (lb/daN)	Weight** (lbs/kg)	M.O.I.** (lb-in ² /kg-m ²)	Pressure Plate (ratio)	Flywheel (type)	Part Number
2-plate	670/911	560/247	6.2/2.8	52.81/0.0155	Ultra-high	Step	6572UORA-S
	670/911	560/247	6.2/2.8	52.26/0.0153	Ultra-high	Pot	6572UORA-P
	820/1115	680/299	6.2/2.8	52.81/0.0155	Ultra-high	Step	6572USG-S
	820/1115	680/299	6.2/2.8	52.26/0.0153	Ultra-high	Pot	6572USG-P
	910/1238	760/334	6.2/2.8	52.81/0.0155	Ultra-high	Step	6572USGG-S
	910/1238	760/334	6.2/2.8	52.26/0.0153	Ultra-high	Pot	6572USGG-P
	990/1346	800/352	6.2/2.8	52.81/0.0155	Ultra-high	Step	6572USGGG-S
	990/1346	800/352	6.2/2.8	52.26/0.0153	Ultra-high	Pot	6572USGGG-P
3-plate	1005/1367	560/247	7.6/3.4	63.71/0.0186	Ultra-high	Step	6573UORA-S
	1005/1367	560/247	7.6/3.4	63.16/0.0185	Ultra-high	Pot	6573UORA-P
	1230/1673	680/299	7.6/3.4	63.71/0.0186	Ultra-high	Step	6573USG-S
	1230/1673	680/299	7.6/3.4	63.16/0.0185	Ultra-high	Pot	6573USG-P
	1365/1856	760/334	7.6/3.4	63.71/0.0186	Ultra-high	Step	6573USGG-S
	1365/1856	760/334	7.6/3.4	63.16/0.0185	Ultra-high	Pot	6573USGG-P
	1485/2020	800/352	7.6/3.4	63.71/0.0186	Ultra-high	Step	6573USGGG-S
	1485/2020	800/352	7.6/3.4	63.16/0.0185	Ultra-high	Pot	6573USGGG-P
4-plate	1640/2230	680/299	9.1/4.1	74.85/0.0219	Ultra-high	Step	6574USG-S
	1640/2230	680/299	9.1/4.1	74.30/0.0217	Ultra-high	Pot	6574USG-P
	1820/2475	760/334	9.1/4.1	74.85/0.0219	Ultra-high	Step	6574USGG-S
	1820/2475	760/334	9.1/4.1	74.30/0.0217	Ultra-high	Pot	6574USGG-P
	1980/2693	800/352	9.1/4.1	74.85/0.0219	Ultra-high	Step	6574USGGG-S
	1980/2693	800/352	9.1/4.1	74.30/0.0217	Ultra-high	Pot	6574USGGG-P

Note: "Step-type" flywheels have a .100" step for the clutch's friction surface.

* Values listed are typical for release bearings with the recommended 44mm contact diameter. Larger contact diameters will increase release load.

** Weight and M.O.I. include pressure plate, carbon floater plates, carbon discs and steel hub, and may vary based on your particular spline.

Service Parts

Pressure Plates (Wear-Compensation Shims)

Designed to compensate for carbon plate wear. Available in .010" (.254mm) increments up to .500" (12.7mm) thick.

Ultra-High Ratio

.360"	657-118U-360	.440"	657-118U-440
.370"	657-118U-370	.450"	657-118U-450
.380"	657-118U-380	.460"	657-118U-460
.390"	657-118U-390	.470"	657-118U-470
.400"	657-118U-400	.480"	657-118U-480
.410"	657-118U-410	.490"	657-118U-490
.420"	657-118U-420	.500"	657-118U-500
.430"	657-118U-430		

1, 2, 3, & 4-plate

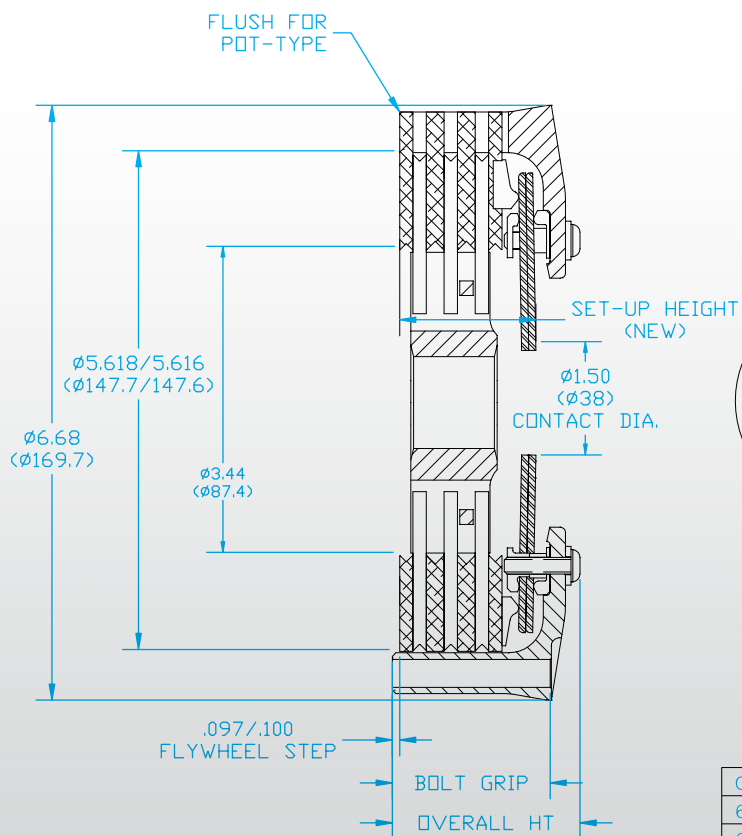
OT-III 5.5"

Clutch Size: **5.5" (140 mm)**Available Disc Count: **1, 2, 3, & 4-plate**Total Weight: **See Table**P/N: **See Table**

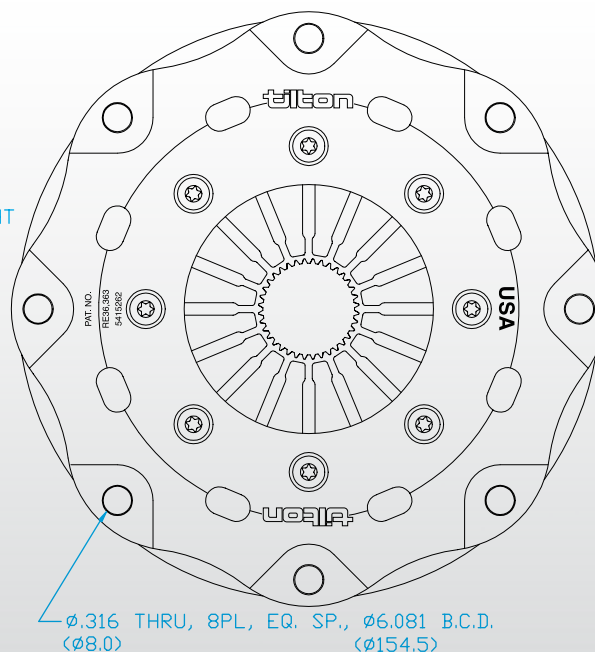
Typical Applications

- Road racing
- Endurance
- Open Wheel/Formula
- Short Course Off-Road

Two pressure plate ratio options offer different torque capacity and modulation characteristics.



UNITS = IN (MM)
ILLUSTRATED WITH HUB P/N 655-351S-36



CLUTCH PART #	SET-UP HEIGHT (IN)	BOLT GRIP	OVERALL HT
6551xxx-x	.87 (22.1)	1.15 (29.2)	1.46 (37.1)
6552xxx-x	1.17 (29.7)	1.45 (36.8)	1.76 (44.7)
6553xxx-x	1.52 (38.6)	1.80 (45.7)	2.11 (53.6)
6554xxx-x	1.80 (45.7)	2.08 (52.8)	2.39 (60.7)

Detailed Clutch Information

Clutch assemblies include clutch cover (with diaphragm spring), pressure plate, carbon floater plates, carbon discs and steel hub.

	Torque Capacity	Release Load*	Weight**	M.O.I.**	Pressure Plate	Flywheel	Part Numbers
	(lb-ft/Nm)	(lb/daN)	(lbs/kg)	(lb-in ² /kg-m ²)	(ratio)	(type)	
1-plate	250/340	850/375	3.0/1.4	14.6/.0043	High	Step	6551HSG-S
	250/340	850/375	3.0/1.4	14.6/.0043	High	Pot	6551HSG-P
	300/408	850/375	3.0/1.4	14.6/.0043	Ultra-high	Step	6551USG-S
	300/408	850/375	3.0/1.4	14.6/.0043	Ultra-high	Pot	6551USG-P
2-plate	500/680	850/375	3.7/1.7	17.8/.0052	High	Step	6552HSG-S
	500/680	850/375	3.7/1.7	17.8/.0052	High	Pot	6552HSG-P
	600/816	850/375	3.7/1.7	17.8/.0052	Ultra-high	Step	6552USG-S
	600/816	850/375	3.7/1.7	17.8/.0052	Ultra-high	Pot	6552USG-P
3-plate	750/1020	850/375	4.4/2.0	22.0/.0065	High	Step	6553HSG-S
	750/1020	850/375	4.4/2.0	22.0/.0065	High	Pot	6553HSG-P
	900/1224	850/375	4.4/2.0	22.0/.0065	Ultra-high	Step	6553USG-S
	900/1224	850/375	4.4/2.0	22.0/.0065	Ultra-high	Pot	6553USG-P
4-plate	1000/1360	850/375	5.2/2.3	25.3/.0074	High	Step	6554HSG-S
	1000/1360	850/375	5.2/2.3	25.3/.0074	High	Pot	6554HSG-P
	1200/1632	850/375	5.2/2.3	25.3/.0074	Ultra-high	Step	6554USG-S
	1200/1632	850/375	5.2/2.3	25.3/.0074	Ultra-high	Pot	6554USG-P

Note: "Step-type" flywheels have a .100" step for the clutch's friction surface.

* Values listed are typical for release bearings with the recommended 38mm contact diameter. Larger contact diameters will increase release load.

** Weight and M.O.I. include pressure plate, carbon floater plates, carbon discs and steel hub, and may vary based on your particular spline.

Service Parts

Pressure Plates (Wear-Compensation Shims)

Designed to compensate for carbon plate wear. Available in .010" (.254mm) increments up to .307" (7.80mm) thick.

High-Ratio				Ultra-High Ratio			
.187"	655-118H-187S	.257"	655-118H-257S	.187"	655-118U-187S	.257"	655-118U-257S
.197"	655-118H-197S	.267"	655-118H-267S	.197"	655-118U-197S	.267"	655-118U-267S
.207"	655-118H-207S	.277"	655-118H-277S	.207"	655-118U-207S	.277"	655-118U-277S
.217"	655-118H-217S	.287"	655-118H-287S	.217"	655-118U-217S	.287"	655-118U-287S
.227"	655-118H-227S	.297"	655-118H-297S	.227"	655-118U-227S	.297"	655-118U-297S
.237"	655-118H-237S	.307"	655-118H-307S	.237"	655-118U-237S	.307"	655-118U-307S
.247"	655-118H-247S			.247"	655-118U-247S		

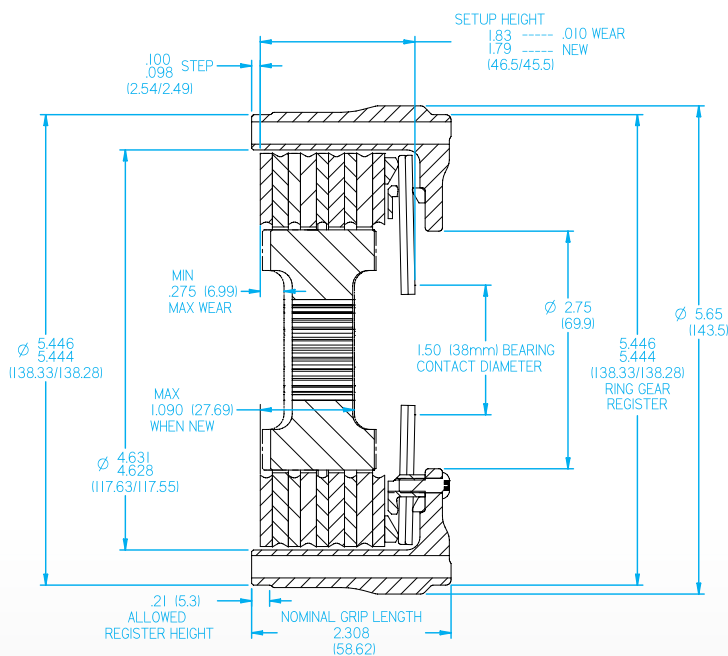
2, 3, & 4-plate

OT-V 4.5"

Clutch Size: **4.5" (114 mm)**Available Disc Count: **2, 3, & 4-plate**Total Weight: **See Table**P/N: **See Table**

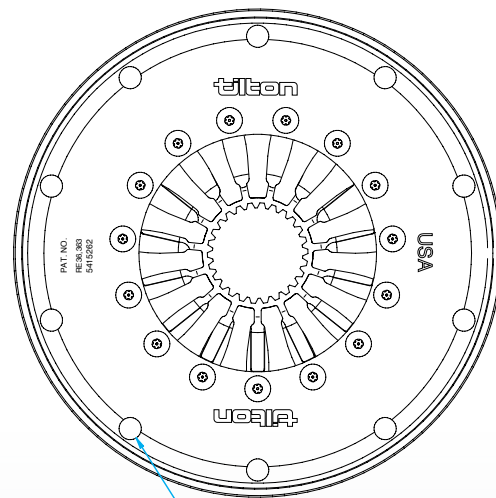
Typical Applications

- Road Racing
- Open Wheel/Formula



NOTES:

1. WEIGHT: 3.8 LBS (1.7 KG), MOI: 15.3 LB-IN², (.0045 KG-M²).
2. TORQUE CAPACITY: 920 LB-FT (1251 N-m), RELEASE LOAD: 800 LBS (352 N).
3. SHOWN WITH 651-451S-36 HUB (1-5/32 X 26 SPLINE).



	Torque Capacity	Release Load*	Weight**	M.O.I.**	Pressure Plate	Flywheel	Part Number
	(lb-ft/Nm)	(lb/daN)	(lbs/kg)	(lb-in ² /kg-m ²)	(ratio)	(type)	
2-plate	460/626	800/352	2.6/1.2	11.4/.0033	High	Step	6512HSG-S
	460/626	800/352	2.6/1.2	11.4/.0033	High	Pot	6512HSG-P
3-plate	690/938	800/352	3.2/1.5	12.3/.0036	High	Step	6513HSG-S
	690/938	800/352	3.2/1.5	12.3/.0036	High	Pot	6513HSG-P
4-plate	920/1251	800/352	3.8/1.8	13.0/.0038	High	Step	6514HSG-S
	920/1251	800/352	3.8/1.8	13.0/.0038	High	Pot	6514HSG-P

Note: "Step-type" flywheels have a .100" step for the clutch's friction surface.

* Values listed are typical for release bearings with the recommended 38mm contact diameter. Larger contact diameters will increase release load.

** Weight and M.O.I. include pressure plate, carbon floater plates, carbon discs and steel hub, and may vary based on your particular spline.

Service Parts

Pressure Plates (Wear-Compensation Shims)

Designed to compensate for carbon plate wear. Available in .010" (.254mm) increments up to .310" (7.87mm) thick.

Ultra-High Ratio

.160"	651-118H-160S	.240"	651-118H-240S
.170"	651-118H-170S	.250"	651-118H-250S
.180"	651-118H-180S	.260"	651-118H-260S
.190"	651-118H-190S	.270"	651-118H-270S
.200"	651-118H-200S	.280"	651-118H-280S
.210"	651-118H-210S	.290"	651-118H-290S
.220"	651-118H-220S	.300"	651-118H-300S
.230"	651-118H-230S	.310"	651-118H-310S

Clutch-Flywheel Assemblies

Carbon/Carbon CFA

Tilton clutch-flywheel assemblies are designed to be a direct replacement for stock assemblies, retaining the same diameter (ring gear size) as originally equipped with the car.

Clutch-flywheel assemblies include a 7.25" 2-plate OT-Series carbon/carbon clutch, billet steel flywheel with integral ring gear and related hardware. Some kits also include a hydraulic release bearing, replacing the stock slave cylinder and release bearing related linkage.



	Application	Clutch Size (inches)	Discs (count)	Weight (lbs)	M.O.I. (lb-in ²)	Torque Capacity (lb-ft)	Part Numbers
Clutch-Flywheel Assemblies	Chevy Corvette C5	7.25"	3	14.3	237	1365	56-805*
	Chevy Corvette C6	7.25"	3	14.3	237	1365	56-808*
	Honda B16A/B18 (1992-on)	7.25"	2	16.0	205	910	56-302H
	Honda K20/K24	7.25"	2	12.3	152	910	56-311
	Lamborghini Gallardo	7.25"	3	25.4	364	1365	Contact Tilton
	Mitsubishi EVO 7-9 (5-spd)	7.25"	2	16.2	225	910	56-352*
	Porsche 993/996/997	7.25"	3	14.3	181	1230	56-814*
	Porsche 993/996/997	5.5"	3	11.6	133	750	57-814*
	Subaru WRX/STI (2002-on)	7.25"	2	19.8	278	910	56-372**
	Toyota Supra MKIV	7.25"	3	20.1	260	1365	Contact Tilton
	Toyota Supra MKIV	7.25"	4	21.7	270	1820	Contact Tilton

* Includes hydraulic release bearing.

** Includes hydraulic release bearing, but requires master cylinder to be changed to a ¾" bore. Contact Tilton Engineering for details.

Honda Hydraulic Release Bearing Kit

Designed specifically for use with Tilton 7.25" 2-plate carbon/carbon clutch-flywheel assemblies. Hydraulic release bearing mounts inside transmission case, eliminating the stock slave cylinder and related release bearing linkage. Provides better clutch modulation and lower pedal effort when compared to using the stock release bearing.

Includes hydraulic release bearing, Tilton ¾"-bore master cylinder kit, master cylinder mounting bracket, pedal clevis, steel braided lines and fittings.



Description

HRB Kit

Part Number

Honda B16A/B18/K20/K24, 7.25" 2-plate carbon clutch

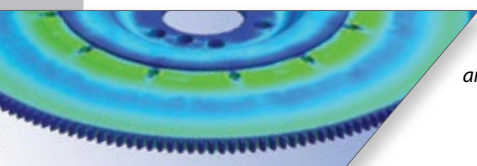
61-7720

Flywheels

In 1973, Mac Tilton began manufacturing lightweight aluminum flywheels. As technology in racing advanced, and the demand for stronger and low-inertia flywheels grew, Tilton began machining flywheels from billet steel. Today, Tilton flywheels are subjected to some of the most grueling racing conditions. They can be found on NASCAR Cup engines, Grand Am DP cars competing in the 24 Hours of Daytona and most other forms of racing.

Tilton has engineered thousands of flywheels for racing and high performance applications. The flywheels listed on the following pages are our most popular flywheels. Tilton also produces flywheels for many specialty and historic car applications on a custom basis. Please contact Tilton for further information on ordering custom flywheels.

Features



Engineered using Finite Element Analysis (FEA) to insure that strength and inertia are fully optimized.



Machined from high quality pre-heat-treated billet steel alloy for maximum strength, heat capacity and low inertia. Integrally cut ring gear for high reliability and reduced inertia.



Precision machined to tight tolerances for smooth engine operation and proper fitment.



Surface heat-treated after machining for maximum durability of the ring gear and clutch friction surface.



Quality assurance by automated Coordinate Measuring Machine (CMM) inspection ensures every dimension is accurate.



Flywheel

OE Diameter
Button

OE Diameter Flywheels

OE Diameter flywheels are designed to be a direct replacement for the stock flywheels of specific car/engine applications, retaining the same diameter (ring gear size) as originally equipped with the car. *Unless noted, flywheels are neutral balance and have a .100" step for the clutch's friction surface.*



	Application	Clutch Diameter	Teeth Count	Weight	M.O.I.	Part Numbers
		(inches)	(number)	(lbs)	(lb-in ²)	
OE Diameter	BMW M50/M52/S50/S52/S54	7.25"	113	7.9	111	51-3568
	Chevy V8 2-pc rear main seal	7.25"	153	7.5	132	51-6200
	Chevy V8 2-pc rear main seal	7.25"	153	6.6	115	52-6201**
	Chevy V8 LS1/2/3/6/7	7.25"	168	7.9	178	51-4452
	Honda B16A/B18	7.25"	112	9.8	155	51-1166
	Honda K20/K24	7.25"	120	6.3	102	51-1180
	Mitsubishi EVO 7-9	7.25"	114	10.9	175	51-4334
	Porsche 993/996/997	5.5"	132	7.2	111	51-4011*
	Porsche 993/996/997	7.25"	132	7.9	122	51-4008*
	Porsche 993/996/997	7.25"	132	18.5	346	Contact Tilton
	Subaru WRX/STI	7.25"	124	11.6	202	51-4122
	Toyota Supra MKIV	7.25"	115	12.0	201	Contact Tilton

* Pot-type (no step) flywheel

** Lightening holes. May not be legal in some racing series.

Button Flywheels

Designed to serve as the clutch's friction surface when used in conjunction with a flexplate. *Unless noted, flywheels are neutral balance and have a .100" step for the clutch's friction surface.*



	Application	Clutch Diameter	Teeth Count	Weight	M.O.I.	Part Numbers
		(inches)	(number)	(lbs)	(lb-in ²)	
Button	Chevy V8 2-pc rear main seal	5.5"	N/A	2.1	11.5	19002
	Chevy V8 2-pc rear main seal	7.25"	N/A	3.6	31.0	19003
	Chevy V8 1-pc rear main seal	5.5"	N/A	2.5	12.3	19010
	Chevy V8 1-pc rear main seal	7.25"	N/A	3.8	30.7	19011
	Ford Small Block V8	5.5"	N/A	2.6	12.5	19007
	Ford Small Block V8	7.25"	N/A	3.8	29.5	19008

Flywheel

Rear-Mount Package
Specialty Application

7.25" Rear-mount Starter Package Flywheels

Designed for use in Tilton 52-series 7.25" Rear-mount Starter bell housings.

Unless noted, flywheels are neutral balance and have a .100" step for the clutch's friction surface.

	Application	Clutch Diameter	Teeth Count	Weight	M.O.I.	Part Numbers
		(inches)	(number)	(lbs)	(lb-in ²)	
7.25" Rear-mount	Chevy V8 2-pc rear main seal	7.25"	110	4.7	52	51-6300
	Chevy V8 R07	7.25"	110	4.8	52	51-6310
	Chevy V8 LS1/2/3/6/7	7.25"	110	5.7	61	51-6341
	Dodge R5/R6 (8-bolt)	7.25"	110	4.8	52	51-6310
	Ford Small Block V8	7.25"	110	4.9	52	51-6320

5.5" Rear-mount Starter Package Flywheels

Designed for use in Tilton 52-series UTGC or Sonic Rear-mount Starter bell housings.

Unless noted, flywheels are neutral balance and have a .100" step for the clutch's friction surface.



	Application	Clutch Diameter	Teeth Count	Weight	M.O.I.	Part Numbers
		(inches)	(number)	(lbs)	(lb-in ²)	
5.5" Rear-mount	Chevy V8 2-pc rear main seal	5.5"	102	3.1	27	51-651
	Chevy V8 2-pc rear main seal	5.5"	102	3.3	28	51-685*
	Chevy V8 LS1/2/3/6/7	5.5"	102	4.3	35	51-659
	Chevy V8 2-pc rear main seal	5.5"	105	4.1	38	19001
	Chevy V8 1-pc rear main seal	5.5"	105	4.1	38	Contact Tilton
	Ford Small Block V8	5.5"	102	3.6	28	51-653
	Ford Small Block V8	5.5"	102	3.9	29	51-686*
	Ford Small Block V8	5.5"	105	4.7	39	19006

* For use with ¼" mid-plate applications

Specialty Application Flywheels

Designed for use in special applications that do not fit any of the categories listed above.

Unless noted, flywheels are neutral balance and have a .100" step for the clutch's friction surface.



	Application	Clutch Diameter	Teeth Count	Weight	M.O.I.	Part Numbers
		(inches)	(number)	(lbs)	(lb-in ²)	
Specialty	Chevy V8 2-pc rear main seal	7.25"	104	5.7	77	51-052-1**
	Dodge R5, Chevy crank pattern	7.25"	153	7.3	128	51-6100
	Ford Small Block V8	7.25"	153	6.6	149	51-1212***
	Swift Atlantic .008/.014	5.5"	74	3.4	27	51-5005

** Requires starter P/N 54-40005

*** Lightening holes. May not be legal in some racing series.

Driveline Packages

In 1992, Tilton Engineering introduced the concept of packaging matched components for use between the engine and transmission. The goal was to simplify the car-building and parts-ordering process. Prior to Tilton's introduction of the driveline package, race teams would spend considerable time sourcing components from various manufacturers. Many times, the various components would not function together properly.

Tilton driveline packages are engineered as a complete system. Each component is designed to work with all the others. As a result, Tilton driveline packages provide maximum performance, reliability and ease of installation. These fundamentals have made Tilton the choice of top race teams worldwide.

52-Series UTGC Aluminum Packages

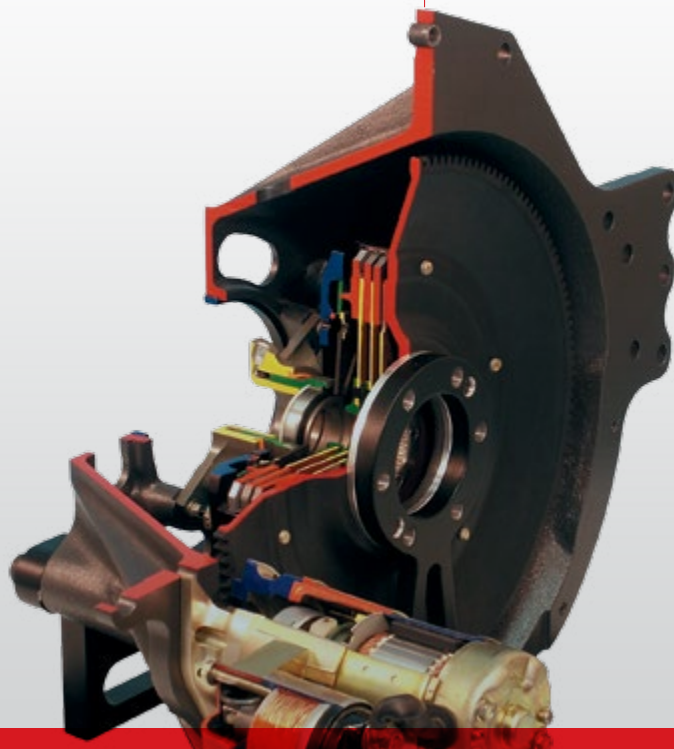


- Aluminum bellhousing
- 5.5" clutch (carbon or metallic, 2 or 3-plate options)
- 102-tooth (8.64") billet steel flywheel
- Hydraulic release bearing
- Rear-mount Super Starter

52-Series 7.25" Aluminum Packages



- Aluminum bellhousing
- 7.25" 3-plate metallic clutch
- 110-tooth (9.62") billet steel flywheel
- Hydraulic release bearing with built-in positive stop
- Rear-mount Super Starter



Package

52-Series UTGC



Packages include a bellhousing, clutch, flywheel, hydraulic release bearing, Super Starter and related hardware.

Chevy V8 (2-piece rear main seal)	Part Numbers
Sport 5.5 2-plate metallic clutch	52-31120
Sport 5.5 3-plate metallic clutch	52-31130
Sport 5.5 3-plate metallic clutch	52-31131*
OT-III 5.5 2-plate carbon clutch	52-31220
OT-III 5.5 3-plate carbon clutch	52-31230

Chevy LS1/LS2/LS6/LS7	Part Numbers
Sport 5.5 2-plate metallic clutch	52-33120
Sport 5.5 3-plate metallic clutch	52-33130
OT-III 5.5 2-plate carbon clutch	52-33220
OT-III 5.5 3-plate carbon clutch	52-33230

Ford Small Block Packages	Part Numbers
Sport 5.5 2-plate metallic clutch	52-32120
Sport 5.5 3-plate metallic clutch	52-32130
Sport 5.5 3-plate metallic clutch	52-32131*
OT-III 5.5 2-plate carbon clutch	52-32220
OT-III 5.5 3-plate carbon clutch	52-32230

Note: All packages are designed for use with transmissions that have a Chevy bolt pattern and a 1 5/32" x 26 spline input shaft.

* For use with 1/4" mid-plate between engine and bellhousing, such as Asphalt Modifieds.

Typical Applications

- Super Late Models
- Modifieds
- Trans Am
- GT1

UTGC packages (part of the 52-Series line) are engineered to be the highest-performance rear-mount starter packages on the market. Designed to offer the most ground clearance possible, 52-Series UTGC packages offer an additional 2.2" of ground clearance over most OE bellhousings. The 102-tooth flywheel and 5.5" Tilton clutch included in these packages offer the lowest inertia possible in rear-mount starter packages of their type, providing quick engine acceleration and deceleration.

Bellhousing

- Rigid aluminum bellhousing resists flexing, allowing maximum power to be transferred to the wheels and minimized wear to driveline components.
- Blueprinted for parallelism and concentricity.

Clutch-Flywheel Assembly

- Sport 5.5" metallic and OT-III 5.5" carbon clutch options provide race-proven performance and reliability.
- Billet steel 102-tooth (8.64") flywheel offers low inertia, precision balance and durability.

Hydraulic Release Bearing

- Aluminum body and piston.
- High temperature quad tensioner mono-seal ensures a leak resistant seal.
- Superior materials and proprietary low friction coatings provide longevity and consistency.
- High quality 38mm contact diameter bearing maximizes clutch modulation and provides reliable operation.

Super Starter

- Rear-mount 40000-Series (3.0 HP) Super Starter.

Package 52-Series 7.25"



Typical Applications

- Cup, Nationwide, Truck Series
- Road Racing
- Off-Road
- Drifting

52-Series 7.25" packages were originally designed specifically for use in the NASCAR "Car of Tomorrow," but are also suitable for other applications that require a 7.25" clutch and rear-mounted starter.

Packages include a bellhousing, clutch, flywheel, hydraulic release bearing, Super Starter and related hardware.

Chevy (E) Packages*	Part Numbers
7.25" 3-plate clutch, 1 5/32" x 26 spline, XLT	52-2001
7.25" 3-plate clutch, 1 1/4" x 29 spline, XLT	52-2002

Chevy R07 Packages	Part Numbers
7.25" 3-plate clutch, 1 5/32" x 26 spline, XLT	52-2003
7.25" 3-plate clutch, 1 1/4" x 29 spline, XLT	52-2004

Chevy LS1/2/3/6/7 Packages	Part Numbers
7.25" 3-plate clutch, 1 5/32" x 26 spline, XLT	52-2010
7.25" 3-plate clutch, 1 1/4" x 29 spline, XLT	52-2020

Ford Small Block Packages	Part Numbers
7.25" 3-plate clutch, 1 5/32" x 26 spline, XLT	52-2009
7.25" 3-plate clutch, 1 1/4" x 29 spline, XLT	52-2014

Note: All packages are designed for use with transmissions that have a Chevy bolt pattern.

* Chevy V8 with 2-pc rear main seal

Bellhousing

- Rigid aluminum bellhousing resists flexing, allowing maximum power to be transferred to the wheels while minimizing wear to driveline components.
- Integral mounting "ears" with flanged inserts (for use as a rear engine mount).
- Bulkhead-mounted fittings for release bearing hydraulic lines.
- Provisions for cam-driven fuel pump.
- Blueprinted for parallelism and concentricity.

Clutch-Flywheel Assembly

- 7.25" OT-II metallic clutch assembly provides race-proven performance and reliability.
- Clutch discs feature 8-rivet hub design for maximum attachment strength.
- Billet steel 110-tooth (9.16") flywheel offers low inertia, precise balance and reliability.
- Clutch mounting studs provide high strength and simplified clutch installation/removal.

Hydraulic Release Bearing

- Billet aluminum body and piston.
- Built-in positive stop limits piston travel to prevent over-stroking of the clutch.
- High temperature quad tensioner mono-seal ensures a leak resistant seal.
- Superior materials and proprietary low friction coatings provide longevity and consistency.
- High-quality 44mm contact diameter bearing maximizes clutch modulation and provides reliable operation.

Super Starter

- Compact XLT (1.6 HP) Super Starter. 40000-Series (3.0 HP) Super Starter models are also available as an option. Contact Tilton for further information.
- Double Reduction Drop Gear design provides smooth engine cranking.
- Safety-wired fasteners.
- Reflective-type starter heat shield, designed to block radiant heat from exhaust headers, bolts directly to the starter (XLT only).

Hydraulic Release Bearings (HRBs)

Tilton offers a wide range of hydraulic release bearings (HRBs) for use with push-type clutches. Hydraulic release bearings are available for use with smaller-diameter racing clutches (4.5", 5.5", & 7.25") and most OE-type clutches.

Tilton hydraulic release bearings are designed to eliminate the need for mechanical linkages, pivot balls, spacers and external slave cylinders.

Modulation and release travel can be adjusted by changing master cylinder bore size and/or clutch pedal ratio. Most Tilton hydraulic release bearing assemblies have a total of .700" of piston travel.

Features



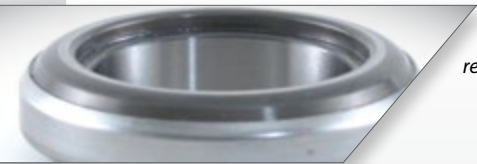
Unique mono-seal technology featuring high-temperature materials and a quad-tensioner.



Constant-contact design allows for consistent pedal feel and all Tilton release bearings are self adjusting.



Proprietary coatings ensure long-lasting durability in the high-demand racing environment.



Long-life, high-quality bearings are used in every Tilton hydraulic release bearing.

Mono-Seal Technology

Tilton's unique mono-seal technology is incorporated into all hydraulic release bearings. The high temperature mono-seal features a quad tensioner to ensure proper seal tension. Seals have been tested to hundreds of thousands of actuations without failure. Tilton hydraulic release bearings feature a wiper seal to provide protection from debris entering the bore.

Constant-Contact & Self Adjusting Design

The constant-contact design of Tilton hydraulic release bearings maintains pedal feel even as the clutch wears. In addition, Tilton hydraulic release bearings self-adjust for clutch wear.

Proprietary Coatings

Tilton hydraulic release bearings feature superior materials and proprietary low friction coatings, providing longevity and consistency.

High Quality Bearings

Tilton hydraulic release bearing assemblies feature high-quality bearings to provide smooth and reliable operation.

All Tilton hydraulic release bearings, except 9000-Series, have 1.215 in² of piston area.

The table below lists recommended master cylinder bore sizes for use with Tilton hydraulic release bearings:

Clutch Size & Type	Bearing Contact Diameter	Recommended M/C Bore Size
4.5" - 5.5" Tilton	1.50" (38mm)	5/8" (15.9mm)
7.25" Tilton	1.73" (44mm)	3/4" (19.1mm)
8.5" Tilton; 4.5" - 7.25" (non-Tilton)	2.05" (52mm)	3/4" (19.1mm)
8.5" - 11" Bent Finger & Lever-Type	1.68" - 3.03" (47mm - 77mm)	7/8" (22.2 mm)

HRB

700-Series

Low profile hydraulic release bearing

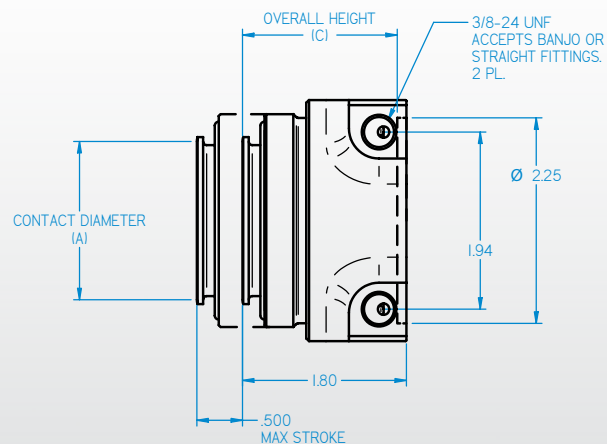
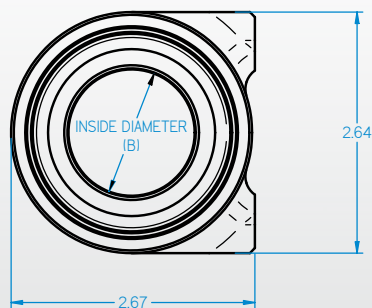
Mount: **Slip fit onto 1.375" (35mm) pilot tube**Body & Piston Material: **Billet aluminum**Piston Area: **1.215 in² (788mm²)**Max Stroke: **.500" (12.7mm)**Ports: **AN-3 (3/8"-24)**Weight: **.70 lbs (varies by p/n)**Included in kit: **AN-3 steel braided line (90")
and related fittings**

Typical Applications

➤ Slip fit over transaxle pilot tube

Reference Drawing

Clutch Type	Contact Diameter	Inside Diameter	Overall Height	Stroke	Part Numbers
diameter / brand	Dimension (A)	Dimension (B)	Dimension (C)	(in/mm)	
7.25" Tilton	1.73" (44mm)	1.38" (35.1mm)	1.64" (41.7mm)	.500" (12.7mm)	61-772
7.25" Tilton	1.73" (44mm)	1.38" (35.1mm)	1.70" (43.2mm)	.500" (12.7mm)	61-777



INSTALLATION NOTES:

1. USE ONLY WITH DOT-3 OR DOT-4 BRAKE FLUID.
2. NO INTERNAL TRAVEL LIMITER. MUST BE USED WITH CLUTCH PEDAL STOP.
3. SEAL REBUILD KIT = 62-905.
4. SEAL INSTALLATION TOOL = 96-002.
5. HYDRAULIC AREA = 1.221 SQ IN.
6. ACCEPTS BANJO OR STRAIGHT FITTINGS

HRB

1XXX-Series

Flush mount "Saab-type" release bearing

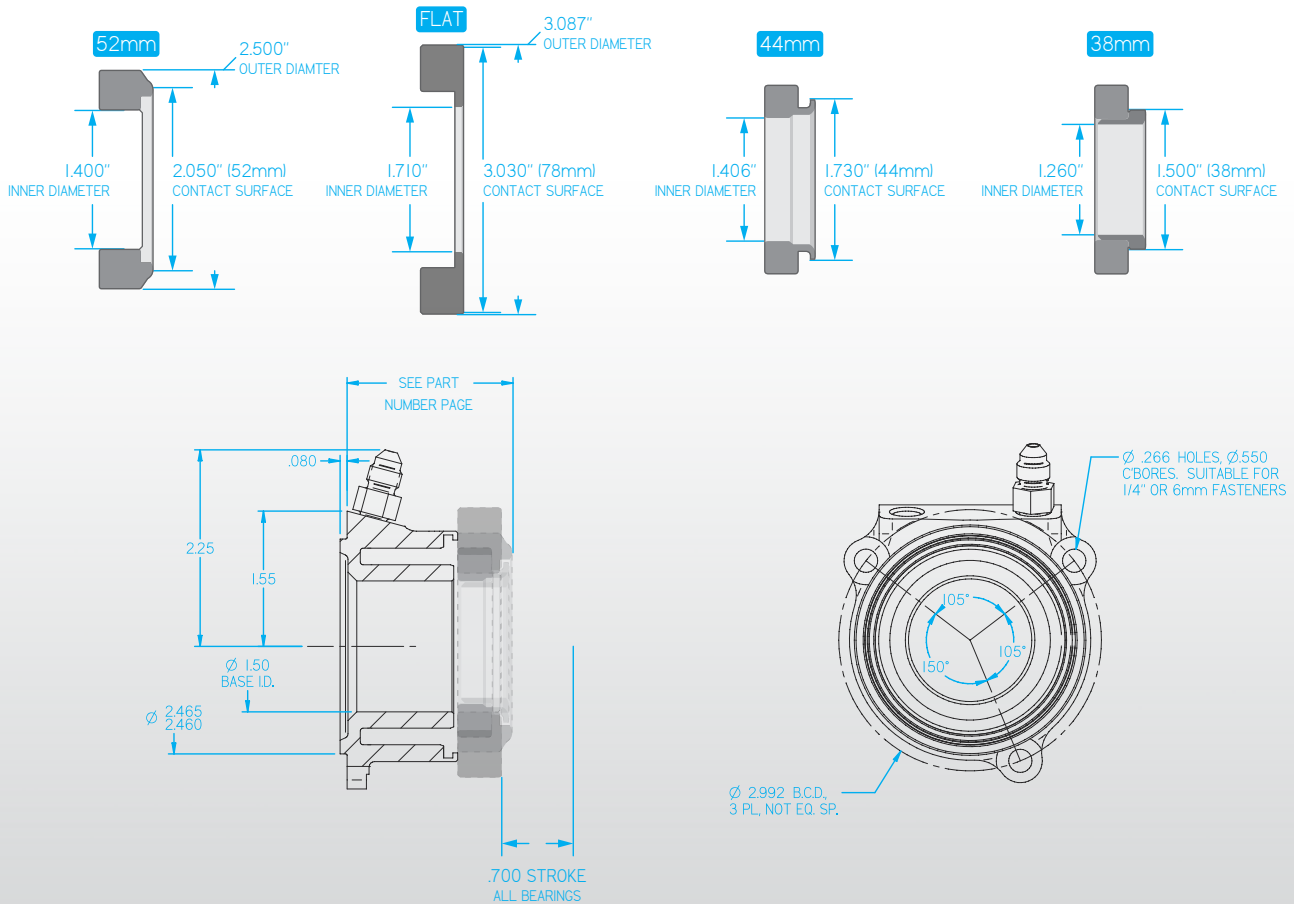


Mount:	3-bolt "Saab-type" pattern
Body & Piston Material:	Billet aluminum
Piston Area:	1.215 in² (784mm²)
Max Stroke:	.700" (17.8 mm)
Ports:	AN-3 (3/8"-24)
Included in kit:	AN-3 fittings (2)

Typical Applications

- Fits many popular racing transmissions designed to accept 3-bolt pattern "Saab-type" hydraulic release bearings.

Reference Drawing



HRB Details



1000-Series

Contact: **2.05" (52mm)**
 Type: **Radius-face bearing**
 Weight: **.85 lbs**
 Application: **5.5" - 8.5" clutches**

52mm	
Part Number	Overall Height
60-1000	2.04" (51.8mm)



1100-Series

Contact: **1.71" – 3.03" (43.4mm – 77.0mm)**
 Type: **Flat-face bearing**
 Weight: **.95 lbs**
 Application: **8.5" - 11.0" bent finger clutches**

Flat-Faced	
Part Number	Overall Height
60-1100	1.79" (45.5mm)



12XX-Series

Contact: **1.75" (44mm)**
 Type: **Radius-face bearing**
 Weight: **.70 lbs (varies by p/n)**
 Application: **5.5" - 7.25" clutches**

44mm		
Part Numbers	Overall Height	
	with shim	without shim
60-1200	1.87" (47.5mm)	1.82" (46.2mm)
60-1210	1.97" (50.0mm)	1.92" (48.8mm)
60-1220	2.07" (52.3mm)	2.02" (51.3mm)
60-1230	2.17" (55.1mm)	2.12" (53.8mm)
60-1240	2.27" (57.7mm)	2.22" (56.4mm)
60-1250	2.37" (60.2mm)	2.32" (58.9mm)
60-1260	2.47" (62.7mm)	2.42" (61.5mm)
60-1270	2.57" (65.3mm)	2.52" (64.0mm)
60-1280	2.67" (67.8mm)	2.62" (66.5mm)
60-1290	2.77" (70.4mm)	2.72" (69.0mm)



13XX-Series

Contact: **1.50" (38mm)**
 Type: **Radius-face bearing**
 Weight: **.75 lbs (varies by p/n)**
 Application: **4.5" - 5.5" clutches**

38mm		
Part Numbers	Overall Height	
	with shim	without shim
60-1300	1.87" (47.5mm)	1.82" (46.2mm)
60-1310	1.97" (50.0mm)	1.92" (48.8mm)
60-1320	2.07" (52.3mm)	2.02" (51.3mm)
60-1330	2.17" (55.1mm)	2.12" (53.8mm)
60-1340	2.27" (57.7mm)	2.22" (56.4mm)
60-1350	2.37" (60.2mm)	2.32" (58.9mm)
60-1360	2.47" (62.7mm)	2.42" (61.5mm)
60-1370	2.57" (65.3mm)	2.52" (64.0mm)
60-1380	2.67" (67.8mm)	2.62" (66.5mm)
60-1390	2.77" (70.4mm)	2.72" (69.0mm)

HRB comes from Tilton factory with shim installed in piston under the bearing. Shim can be removed by customer to gain .050" (1.3mm) additional clearance.

HRB

3XXX-Series

3-leg hydraulic release bearing



Mount:

3-bolt pattern

Body & Piston Material:

Billet aluminum

Piston Area:

1.215 in² (788mm²)

Max Stroke:

.700" (17.8mm)

Ports:

AN-3 (3/8"-24)

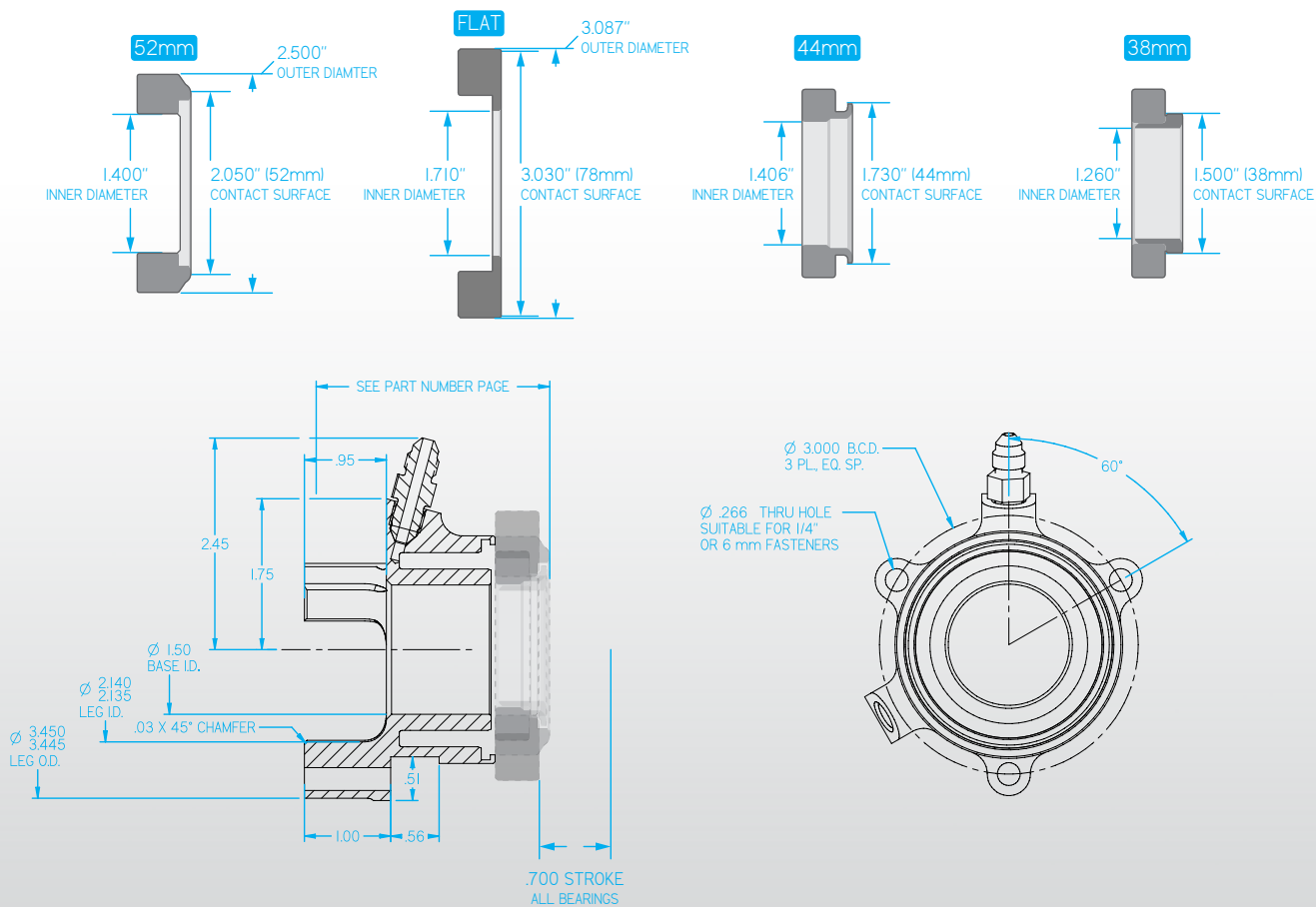
Included in kit:

AN-3 fittings (2)

Typical Applications

► Bulkhead-mounted inside transmissions or bellhousings

Reference Drawing



HRB Details



3000-Series

Contact: **2.05" (52mm)**
 Type: **Radius-face bearing**
 Weight: **.90 lbs**
 Application: **5.5" - 8.5" clutches**

52mm	
Part Number	Overall Height
60-3000	3.00" (76.2mm)



3100-Series

Contact: **1.71" - 3.03" (43.4mm - 77.0mm)**
 Type: **Flat-face bearing**
 Weight: **1.00 lbs**
 Application: **8.5" - 11.0" bent finger clutches**

Flat-Faced	
Part Number	Overall Height
60-3100	2.74" (69.6mm)



32XX-Series

Contact: **1.75" (44mm)**
 Type: **Radius-face bearing**
 Weight: **.75 lbs (varies by p/n)**
 Application: **5.5" - 7.25" clutches**

44mm		
Part Numbers	Overall Height	
	with shim	without shim
60-3200	2.82" (71.6mm)	2.77" (70.4mm)
60-3210	2.92" (74.2mm)	2.87" (72.9mm)
60-3220	3.02" (76.7mm)	2.97" (75.4mm)
60-3230	3.12" (79.2mm)	3.07" (78.0mm)
60-3240	3.22" (81.8mm)	3.17" (80.5mm)
60-3250	3.32" (84.3mm)	3.27" (83.1mm)
60-3260	3.42" (86.9mm)	3.37" (85.6mm)
60-3270	3.52" (89.4mm)	3.47" (88.1mm)
60-3280	3.62" (91.9mm)	3.57" (90.7mm)
60-3290	3.72" (94.5mm)	3.67" (93.2mm)



33XX-Series

Contact: **1.50" (38mm)**
 Type: **Radius-face bearing**
 Weight: **.80 lbs (varies by p/n)**
 Application: **4.5" - 5.5" clutches**

38mm		
Part Numbers	Overall Height	
	with shim	without shim
60-3300	2.82" (71.6mm)	2.77" (70.4mm)
60-3310	2.92" (74.2mm)	2.87" (72.9mm)
60-3320	3.02" (76.7mm)	2.97" (75.4mm)
60-3330	3.12" (79.2mm)	3.07" (78.0mm)
60-3340	3.22" (81.8mm)	3.17" (80.5mm)
60-3350	3.32" (84.3mm)	3.27" (83.1mm)
60-3360	3.42" (86.9mm)	3.37" (85.6mm)
60-3370	3.52" (89.4mm)	3.47" (88.1mm)
60-3380	3.62" (91.9mm)	3.57" (90.7mm)
60-3390	3.72" (94.5mm)	3.67" (93.2mm)

HRB comes from Tilton factory with shim installed in piston under the bearing. Shim can be removed by customer to gain .050" (1.3mm) additional clearance.

HRB

4XXX-Series

4-leg hydraulic release bearing



Mount:

4-bolt pattern

Body & Piston Material:

Aluminum

Piston Area:

1.215 in² (788mm²)

Max Stroke:

.700" (17.8mm)

Ports:

AN-3 (3/8"-24)

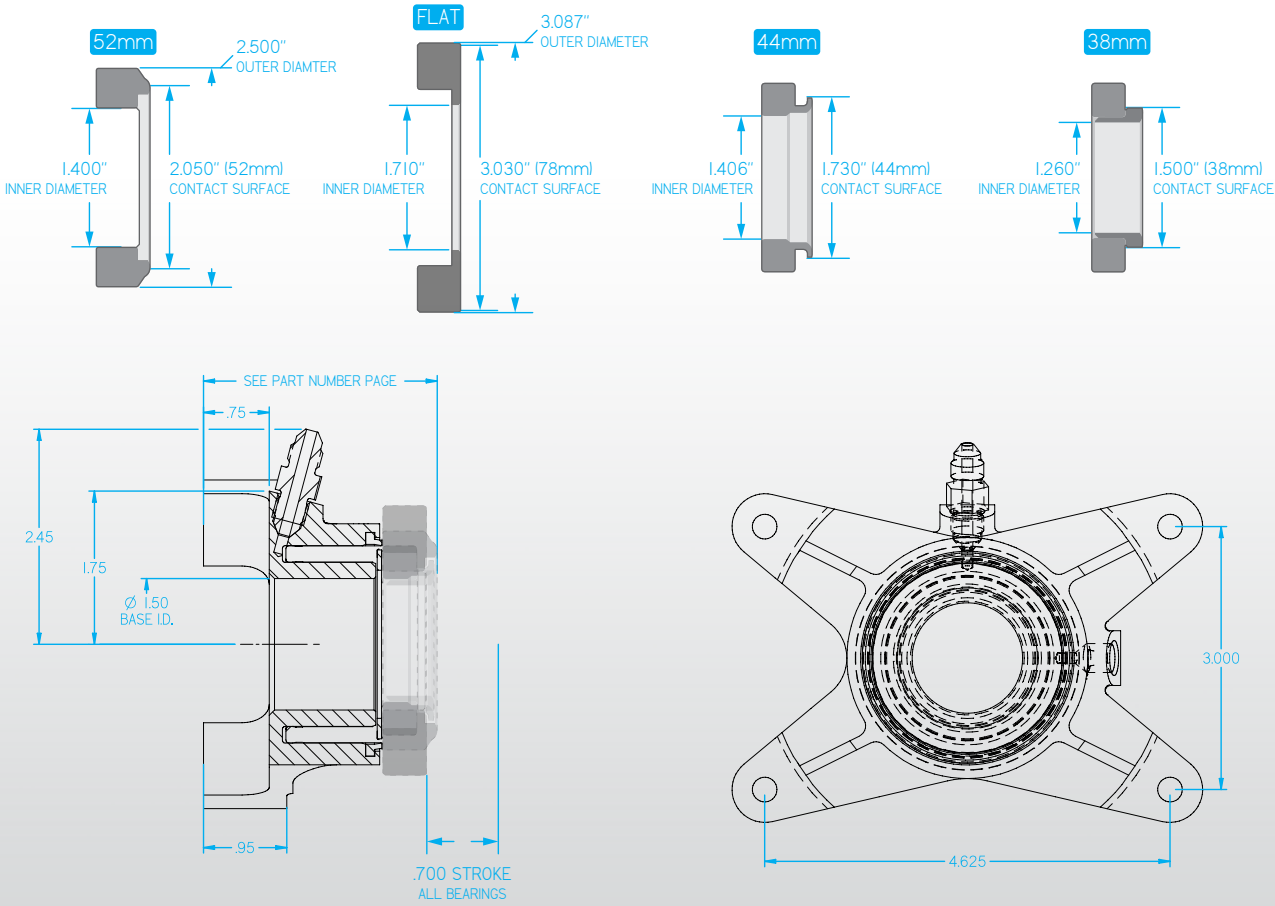
Included in kit:

AN-3 fittings (2)

Typical Applications

► Bulkhead-mounted inside transmissions or bellhousings

Reference Drawing



HRB Details



4000-Series

Contact: **2.05" (52mm)**
 Type: **Radius-face bearing**
 Weight: **1.30 lbs**
 Application: **5.5" - 8.5" clutches**

52mm	
Part Number	Overall Height
60-4000	2.80" (71.0mm)



4100-Series

Contact: **1.71" - 3.03" (43.4mm - 77.0mm)**
 Type: **Flat-face bearing**
 Weight: **1.45 lbs**
 Application: **8.5" - 11.0" bent finger clutches**

Flat-Faced	
Part Number	Overall Height
60-4100	2.54" (64.5mm)



42XX-Series

Contact: **1.75" (44mm)**
 Type: **Radius-face bearing**
 Weight: **1.15 lbs (varies by p/n)**
 Application: **5.5" - 7.25" clutches**

44mm		
Part Numbers	Overall Height	
	with shim	without shim
60-4200	2.62" (66.5mm)	2.57" (65.3mm)
60-4210	2.72" (69.0mm)	2.67" (67.8mm)
60-4220	2.82" (71.6mm)	2.77" (70.4mm)
60-4230	2.92" (74.2mm)	2.87" (72.9mm)
60-4240	3.02" (76.7mm)	2.97" (75.4mm)
60-4250	3.12" (79.2mm)	3.07" (78.0mm)
60-4260	3.22" (81.8mm)	3.17" (80.5mm)
60-4270	3.32" (84.3mm)	3.27" (83.0mm)
60-4280	3.42" (86.9mm)	3.37" (85.6mm)
60-4290	3.52" (89.4mm)	3.47" (88.1mm)



43XX-Series

Contact: **1.50" (38mm)**
 Type: **Radius-face bearing**
 Weight: **1.20 lbs (varies by p/n)**
 Application: **4.5" - 5.5" clutches**

38mm		
Part Numbers	Overall Height	
	with shim	without shim
60-4300	2.62" (66.5mm)	2.57" (65.3mm)
60-4310	2.72" (69.0mm)	2.67" (67.8mm)
60-4320	2.82" (71.6mm)	2.77" (70.4mm)
60-4330	2.92" (74.2mm)	2.87" (72.9mm)
60-4340	3.02" (76.7mm)	2.97" (75.4mm)
60-4350	3.12" (79.2mm)	3.07" (78.0mm)
60-4360	3.22" (81.8mm)	3.17" (80.5mm)
60-4370	3.32" (84.3mm)	3.27" (83.0mm)
60-4380	3.42" (86.9mm)	3.37" (85.6mm)
60-4390	3.52" (89.4mm)	3.47" (88.1mm)

HRB comes from Tilton factory with shim installed in piston under the bearing. Shim can be removed by customer to gain .050" (1.3mm) additional clearance.

HRB

5XXX-Series

4-leg hydraulic release bearing



Mount:

4-bolt pattern

Body & Piston Material:

Aluminum

Piston Area:

1.215 in² (788mm²)

Max Stroke:

.700" (17.8mm)

Ports:

AN-3 (3/8"-24)

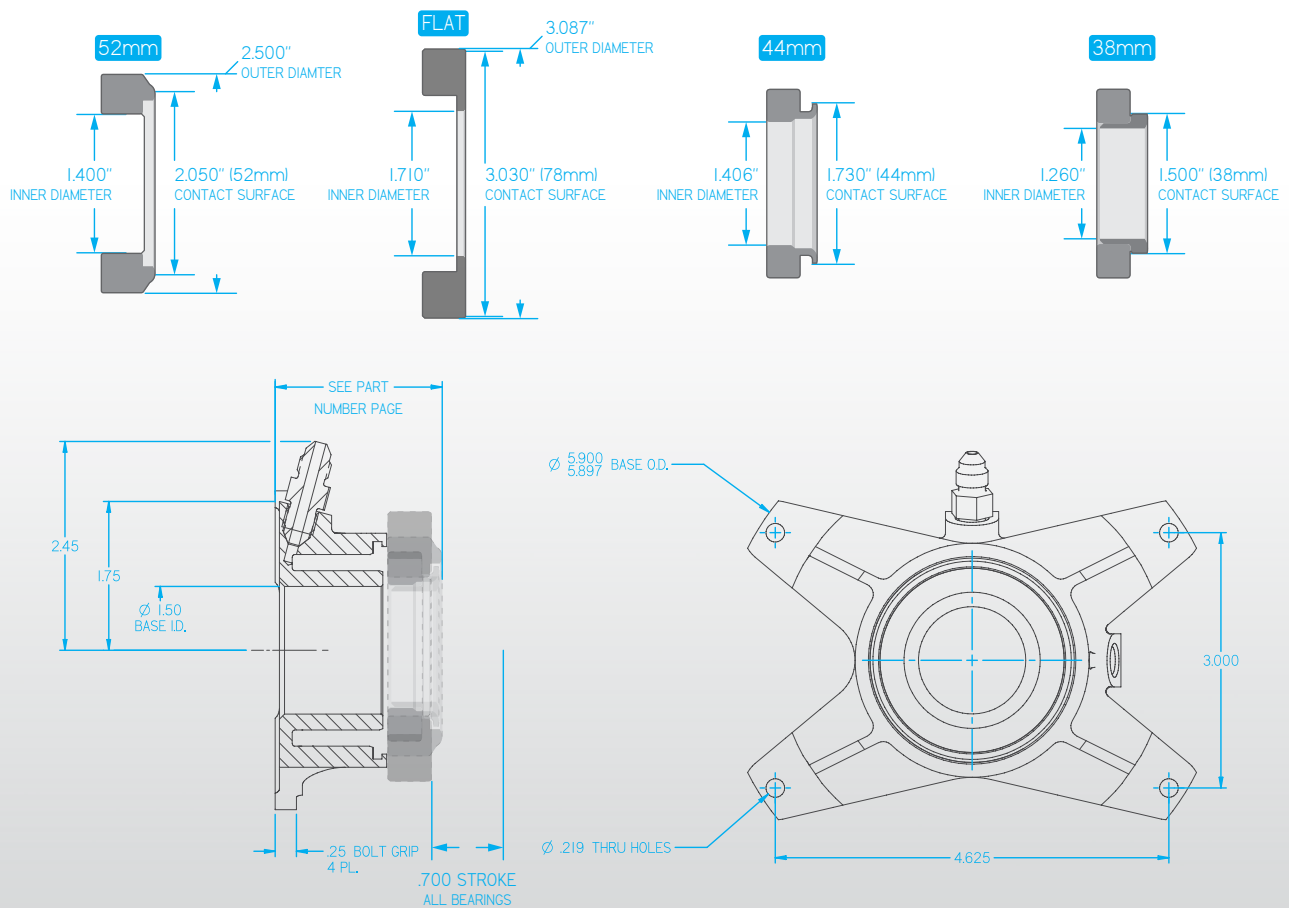
Included in kit:

AN-3 fittings (2)

Typical Applications

► Bulkhead-mounted inside transmissions or bellhousings

Reference Drawing



HRB Details



Contact: **1.75" (44mm)**
 Type: **Radius-face bearing**
 Weight: **.95 lbs (varies by p/n)**
 Application: **5.5" - 7.25" clutches**

52XX-Series

44mm		
Part Numbers	Overall Height	
	with shim	without shim
60-5200	1.92" (48.8mm)	1.87" (47.5mm)
60-5210	2.02" (51.3mm)	1.97" (50.0mm)
60-5220	2.12" (53.8mm)	2.07" (52.6mm)
60-5230	2.22" (56.4mm)	2.17" (55.1mm)
60-5240	2.32" (58.9mm)	2.27" (57.7mm)
60-5250	2.42" (61.5mm)	2.37" (60.2mm)
60-5260	2.52" (64.0mm)	2.47" (62.7mm)
60-5270	2.62" (66.5mm)	2.57" (65.3mm)
60-5280	2.72" (69.1mm)	2.67" (67.8mm)
60-5290	2.82" (71.6mm)	2.77" (70.4mm)



Contact: **1.50" (38mm)**
 Type: **Radius-face bearing**
 Weight: **.95 lbs (varies by p/n)**
 Application: **4.5" - 5.5" clutches**

53XX-Series

38mm		
Part Numbers	Overall Height	
	with shim	without shim
60-5300	1.92" (48.8mm)	1.87" (47.5mm)
60-5310	2.02" (51.3mm)	1.97" (50.0mm)
60-5320	2.12" (53.8mm)	2.07" (52.6mm)
60-5330	2.22" (56.4mm)	2.17" (55.1mm)
60-5340	2.32" (58.9mm)	2.27" (57.7mm)
60-5350	2.42" (61.5mm)	2.37" (60.2mm)
60-5360	2.52" (64.0mm)	2.47" (62.7mm)
60-5370	2.62" (66.5mm)	2.57" (65.3mm)
60-5380	2.72" (69.1mm)	2.67" (67.8mm)
60-5390	2.82" (71.6mm)	2.77" (70.4mm)

HRB comes from Tilton factory with shim installed in piston under the bearing. Shim can be removed by customer to gain .050" (1.3mm) additional clearance.

HRB

6000-Series

Adjustable length hydraulic release bearing



Mount:

Transmission

Body & Piston Material:

Billet aluminum

Piston Area:

1.215 in² (788mm²)

Max Stroke:

.700" (17.8mm)

Ports:

AN-4 (7/16"-20)

Included in kit:

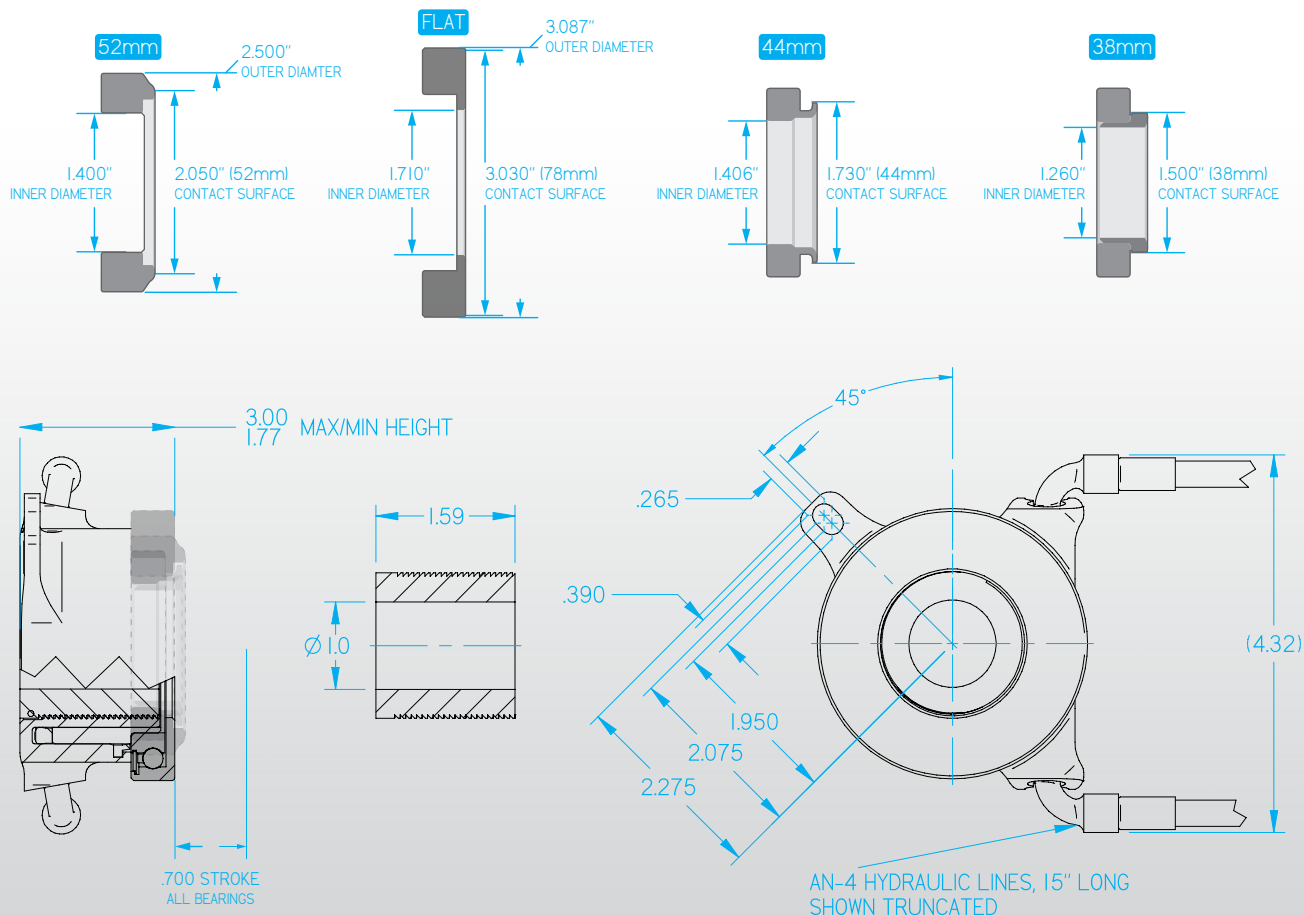
Braided lines & bleed fitting

6000-Series Hydraulic Release Bearing features Tilton race-proven reliability for the street. These hydraulic release bearings have been designed for ease of installation and maximum reliability at a very competitive price. 6000-Series HRBs feature a stainless steel threaded bearing retainer-mount sleeve that offers nearly 1.25" of adjustability. Available for popular transmission models.

Typical Applications

- Adjustable hydraulic release bearing that is designed to mount onto transmission input shaft bearing retainer.

Reference Drawing



HRB Details

Application	Clutch Diameter	Adjustment Range	Contact Diameter	Part Numbers
	(inches)	(inches)	(inches)	
Ford Tremec TKO/500/600	8.5" - 11"	1.77" - 3.00"	Flat-face 1.71" - 3.03"	60-6102
Toploader (1 1/16" x 10 input shaft)	8.5" - 11"	1.77" - 3.00"	Flat-face 1.71" - 3.03"	60-6102
Ford T-5	8.5" - 11"	1.77" - 3.00"	Flat-face 1.71" - 3.03"	60-6104
GM Tremec TKO/500/600 & Saginaw	8.5" - 11"	1.77" - 3.00"	Flat-face 1.71" - 3.03"	60-6101
GM T-5	8.5" - 11"	1.77" - 3.00"	Flat-face 1.71" - 3.03"	60-6103
Universal	8.5" - 11"	1.77" - 3.00"	Flat-face 1.71" - 3.03"	60-6100*
Universal	5.5" - 8.5"	1.77" - 3.00"	52mm Radius-face	60-6000*
Universal	5.5" - 7.25"	1.77" - 3.00"	44mm Radius-face	60-6230*
Universal	4.5" - 5.5"	1.77" - 3.00"	38mm Radius-face	60-6330*

* Adjustment sleeve has a 1.00" pilot hole that customers can bore (up to 1.437") to suit custom applications.



HRB

8XXX-Series

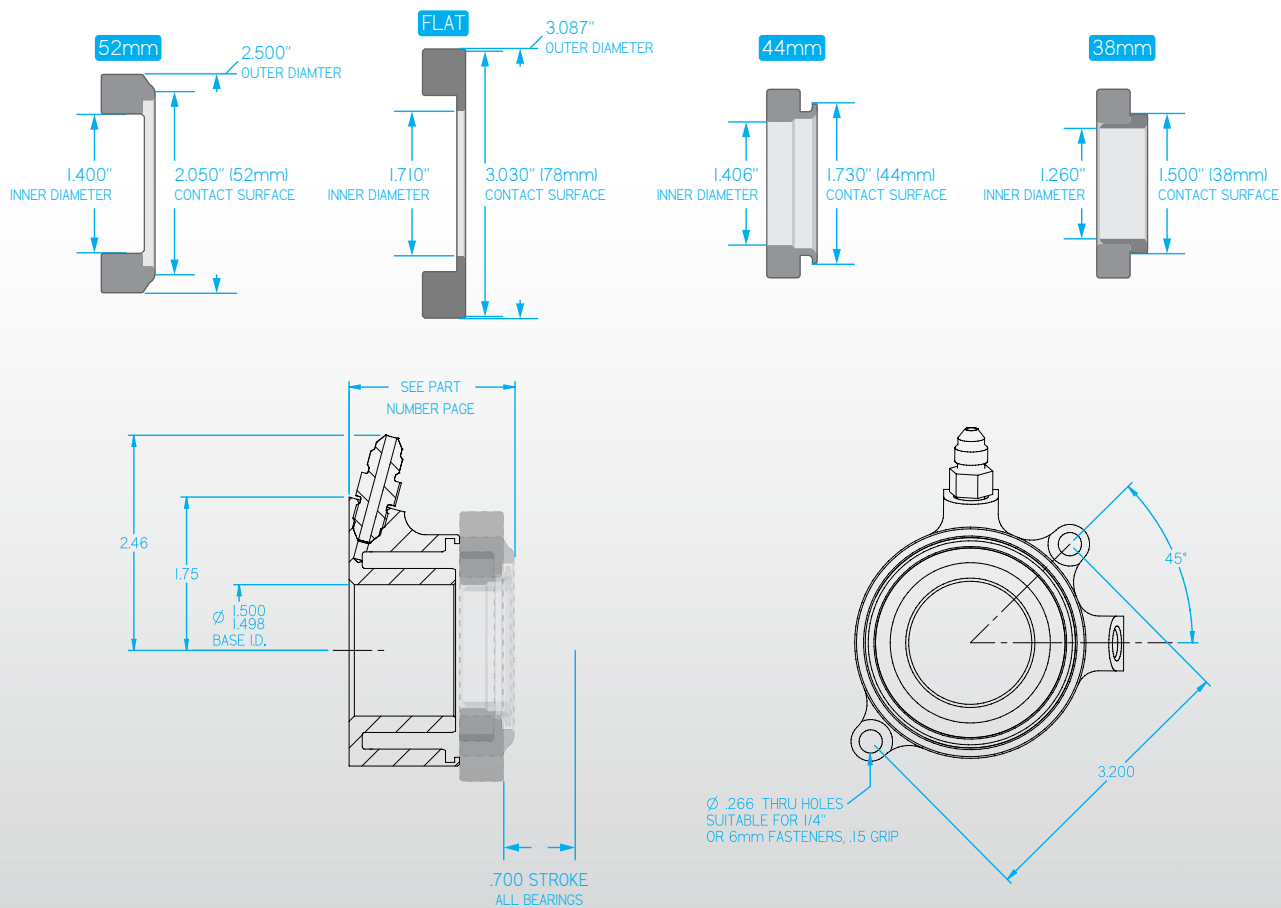
Low-profile hydraulic release bearing

Mount: **2-bolt pattern**Body & Piston Material: **Billet aluminum**Piston Area: **1.215 in² (788mm²)**Max Stroke: **.700" (17.8mm)**Ports: **AN-3 (3/8"-24)**Included in kit: **AN-3 fittings (2)**

Typical Applications

► Bulkhead-mounted inside transmissions or bellhousings

Reference Drawing



HRB Details



8000-Series

Contact: **2.05" (52mm)**
 Type: **Radius-face bearing**
 Weight: **.85 lbs**
 Application: **5.5" - 8.5" clutches**

52mm	
Part Number	Overall Height
60-8000	2.05" (52.0mm)



8100-Series

Contact: **1.71" – 3.03" (43.4mm – 77.0mm)**
 Type: **Flat-face bearing**
 Weight: **.95 lbs**
 Application: **8.5" - 11.0" bent finger clutches**

Flat-Faced	
Part Number	Overall Height
60-8100	1.79" (45.5mm)



82XX-Series

Contact: **1.75" (44mm)**
 Type: **Radius-face bearing**
 Weight: **.70 lbs (varies by p/n)**
 Application: **5.5" - 7.25" clutches**

44mm		
Part Numbers	Overall Height	
	with shim	without shim
60-8200	1.87" (47.5mm)	1.82" (46.2mm)
60-8210	1.97" (50.0mm)	1.92" (48.8mm)
60-8220	2.07" (52.3mm)	2.02" (51.3mm)
60-8230	2.17" (55.1mm)	2.12" (53.8mm)
60-8240	2.27" (57.7mm)	2.22" (56.4mm)
60-8250	2.37" (60.2mm)	2.32" (58.9mm)
60-8260	2.47" (62.7mm)	2.42" (61.5mm)
60-8270	2.57" (65.3mm)	2.52" (64.0mm)
60-8280	2.67" (67.8mm)	2.62" (66.5mm)
60-8290	2.77" (70.4mm)	2.72" (69.0mm)



83XX-Series

Contact: **1.50" (38mm)**
 Type: **Radius-face bearing**
 Weight: **.75 lbs (varies by p/n)**
 Application: **4.5" - 5.5" clutches**

38mm		
Part Numbers	Overall Height	
	with shim	without shim
60-8300	1.87" (47.5mm)	1.82" (46.2mm)
60-8310	1.97" (50.0mm)	1.92" (48.8mm)
60-8320	2.07" (52.3mm)	2.02" (51.3mm)
60-8330	2.17" (55.1mm)	2.12" (53.8mm)
60-8340	2.27" (57.7mm)	2.22" (56.4mm)
60-8350	2.37" (60.2mm)	2.32" (58.9mm)
60-8360	2.47" (62.7mm)	2.42" (61.5mm)
60-8370	2.57" (65.3mm)	2.52" (64.0mm)
60-8380	2.67" (67.8mm)	2.62" (66.5mm)
60-8390	2.77" (70.4mm)	2.72" (69.0mm)

HRB comes from Tilton factory with shim installed in piston under the bearing. Shim can be removed by customer to gain .050" (1.3mm) additional clearance.

HRB

9000-Series

Reduced piston area hydraulic release bearing

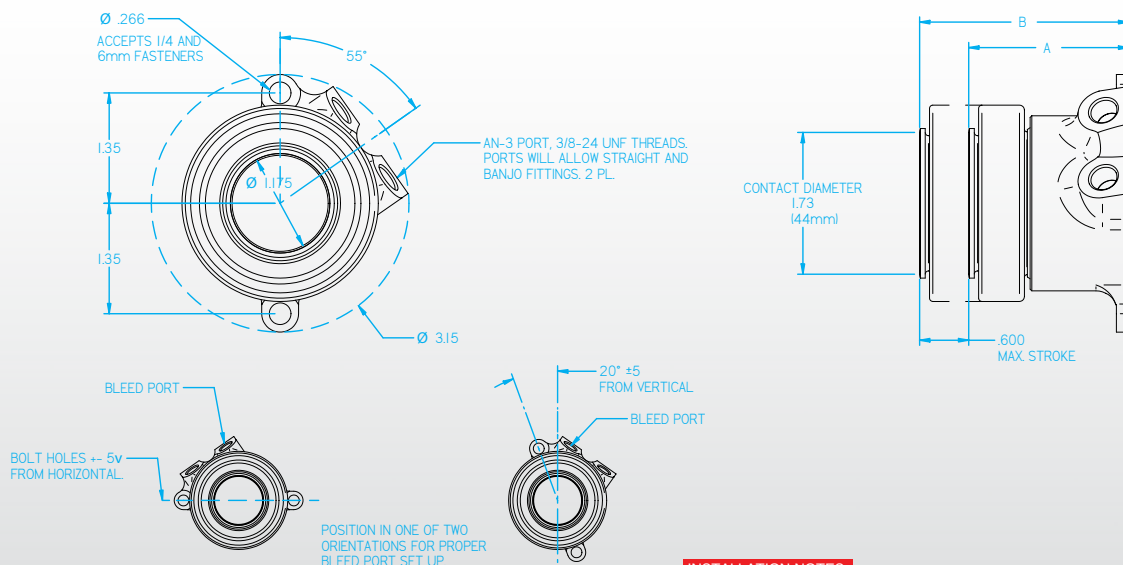
Mount: **2-bolt**Body & Piston Material: **Billet aluminum**Piston Area: **.93 in² (600mm²)**Max Stroke: **.600" (15.2mm)**Ports: **AN-3 (3/8"-24)**Weight: **.56 lbs (varies by p/n)**Included in kit: **Supply and bleed port fittings**

Typical Applications

- Applications that require a hydraulic release bearing with a reduced piston area, enabling the use of a 5/8" master cylinder (OE in many production cars) with a 7.25" clutch. Mounts onto transmission/bellhousing (typically with an adapter).

Reference Drawing

Clutch Type	Contact Diameter	Inside Diameter	Overall Height	Stroke	Part Numbers
diameter / brand	Dimension (A)	Dimension (B)	Dimension (C)	(in/mm)	
7.25" Tilton	1.73" (44mm)	1.18" (30.0mm)	1.95" (49.5mm)	.600"/15.2mm	61-9002
7.25" Tilton	1.73" (44mm)	1.18" (30.0mm)	2.02" (51.3mm)	.600"/15.2mm	61-9012



PART NUMBER	SET UP HEIGHT "A"	EXTENDED HEIGHT "B"
61-9002	1.95	2.55
61-9012	2.02	2.67

INSTALLATION NOTES:

1. USE ONLY WITH DOT-3 OR DOT-4 BRAKE FLUID.
2. NO INTERNAL TRAVEL LIMITER. MUST BE USED WITH CLUTCH PEDAL STOP
3. SEAL REBUILD KIT = 62-9980.
4. SEAL INSTALLATION TOOL = 96-002.
5. HYDRAULIC AREA = .93 SQ IN.
6. SELF ADJUSTING FOR CLUTCH WEAR
7. USE BEARING P/N 62-031

HRB

Service Parts



Bearings

For use with Tilton release bearings, as described below:

Application	Contact Diameter	Part Numbers
60-X3XX-Series HRBs	38mm (Radius-face)	62-008
60-X2XX-Series HRBs	44mm (Radius-face)	62-031
60-X0XX-Series HRBs	52mm (Radius-face)	62-002
60-X1XX-Series HRBs	Flat-face	62-618

Seal Kits

For use with Tilton release bearings, as described below:

Application	Part Numbers
Universal (except for 9000-Series)	62-905
9000-Series HRBs	62-9980



Pistons

For use with Tilton release bearings, as described below:

Application	Bearing Fitment	Length	Part Numbers
60-X2XX Series HRBs and 60-X3XX Series HRBs	38mm (radius-face) and 44mm (radius-face)	1.215" (30.9mm)	62-6000
		1.315" (33.4mm)	62-6001
		1.415" (35.9mm)	62-6002
		1.515" (38.5mm)	62-6003
		1.615" (41.0mm)	62-6004
		1.715" (43.6mm)	62-6005
		1.815" (46.1mm)	62-6006
		1.915" (48.6mm)	62-6007
		2.015" (51.2mm)	62-6008
		2.115" (53.7mm)	62-6009
60-X0XX-Series HRBs	52mm (radius-face)	1.530" (38.9mm)	62-612
60-X1XX-Series HRBs	Flat-face bearings	1.240" (31.5mm)	62-6100



Driveline Accessories

Clutch Bolt Kits

Metallic Clutch Bolt Kits

	Clutch Diameter	Plate Count	Flywheel	Mounting Hole	Size	Length	Length	Part Number
	(inches)	(number)	(type)	(type)	(inches)	(under head)	(grip)	
5.5" Clutches	5.5"	1	Step	Through	5/16"-24	1.72"	1.19"	95-001-5
	5.5"	1	Step	Threaded	5/16"-24	1.47"	.938"	95-015
	5.5"	2	Step/Pot	Through	5/16"-24	1.97"	1.44"	95-002-5
	5.5"	2	Step	Threaded	5/16"-24	1.84"	1.31"	95-009-5
	5.5"	2	Pot	Threaded	5/16"-24	1.72"	1.19"	95-010-5
	5.5"	3	Step	Through	5/16"-24	2.34"	1.81"	95-019
	5.5"	3	Pot	Through	5/16"-24	2.22"	1.69"	95-003-5
	5.5"	3	Step	Threaded	5/16"-24	2.09"	1.56"	95-018
	5.5"	3	Pot	Threaded	5/16"-24	1.97"	1.44"	95-002-5
	5.5"	4	Step	Through	5/16"-24	2.59"	2.06"	95-004-5
	5.5"	4	Pot	Through	5/16"-24	2.47"	1.94"	95-061
	5.5"	4	Step	Threaded	5/16"-24	2.34"	1.81"	95-019
	5.5"	4	Pot	Threaded	5/16"-24	2.22"	1.69"	95-003-5

7.25" Clutches	7.25"	1	Step	Through	5/16"-24	1.47"	.938"	95-026
	7.25"	1	Step	Threaded	5/16"-24	1.34"	.813"	95-009
	7.25"	2	Step	Through	5/16"-24	1.84"	1.31"	95-017
	7.25"	2	Pot	Through	5/16"-24	1.72"	1.19"	95-005
	7.25"	2	Step	Threaded	5/16"-24	1.59"	1.06"	95-028
	7.25"	2	Pot	Threaded	5/16"-24	1.47"	.938"	95-010
	7.25"	3	Step	Through	5/16"-24	2.09"	1.56"	95-018
	7.25"	3	Pot	Through	5/16"-24	1.97"	1.44"	95-006
	7.25"	3	Step	Threaded	5/16"-24	1.84"	1.31"	95-011
	7.25"	3	Pot	Threaded	5/16"-24	1.72"	1.19"	95-014
	7.25"	4	Step	Through	5/16"-24	2.34"	1.81"	95-008
	7.25"	4	Pot	Through	5/16"-24	2.22"	1.69"	95-003-5
	7.25"	4	Step/Pot	Threaded	5/16"-24	2.09"	1.56"	95-012

Cerametallic Clutch Bolt Kits

	Clutch Diameter	Plate Count	Flywheel	Mounting Hole	Size	Length	Length	Part Numbers
	(inches)	(number)	(type)	(type)	(inches)	(under head)	(grip)	
7.25" Clutches	7.25"	1	Step	Through	5/16"-24	1.59"	1.06"	95-028
	7.25"	1	Step	Threaded	5/16"-24	1.47"	.938"	95-010
	7.25"	2	Step	Through	5/16"-24	2.09"	1.56"	95-018
	7.25"	2	Step	Threaded	5/16"-24	1.84"	1.31"	95-011

Note for all bolt kits:

Step-type Flywheel: Clutch friction surface is .100" above clutch mounting surface.

Pot-type Flywheel: Clutch friction surface is equal to clutch mounting surface.

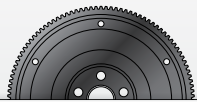
Driveline Accessories

Flywheel Bolt Kits Stud Kits

Carbon/Carbon Clutch Bolt Kits

5.5" Clutches	Clutch Diameter	Plate Count	Flywheel	Mounting Hole	Size	Length	Length	Part Numbers
	(inches)	(number)	(type)	(type)	(inches)	(under head)	(grip)	
	5.5"	1	Step/Pot	Through	5/16"-24	1.72"	1.19"	95-001-5
	5.5"	1	Step	Threaded	5/16"-24	1.59"	1.06"	95-029
	5.5"	1	Pot	Threaded	5/16"-24	1.47"	.938"	95-015
	5.5"	2	Step	Through	5/16"-24	2.09"	1.56"	95-018
	5.5"	2	Pot	Through	5/16"-24	1.97"	1.44"	95-002-5
	5.5"	2	Step	Threaded	5/16"-24	1.84"	1.31"	95-009-5
	5.5"	2	Pot	Threaded	5/16"-24	1.72"	1.19"	95-010-5
	5.5"	3	Step	Through	5/16"-24	2.47"	1.94"	95-061
	5.5"	3	Pot	Through	5/16"-24	2.34"	1.81"	95-019
	5.5"	3	Step	Threaded	5/16"-24	2.22"	1.69"	95-003-5
	5.5"	3	Pot	Threaded	5/16"-24	2.09"	1.56"	95-018
	5.5"	4	Step	Through	5/16"-24	2.72"	2.19"	95-060
	5.5"	4	Pot	Through	5/16"-24	2.59"	2.06"	95-004-5
	5.5"	4	Step	Threaded	5/16"-24	2.47"	1.94"	95-061
	5.5"	4	Pot	Threaded	5/16"-24	2.34"	1.81"	95-019

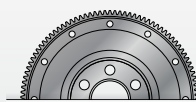
7.25" Clutches	7.25"	1	Step/Pot	Through	5/16"-24	1.72"	1.19"	95-020
	7.25"	1	Step/Pot	Threaded	5/16"-24	1.47"	.938"	95-041
	7.25"	2	Step	Through	5/16"-24	2.09"	1.56"	95-027
	7.25"	2	Pot	Through	5/16"-24	1.97"	1.44"	95-023
	7.25"	2	Step/Pot	Threaded	5/16"-24	1.84"	1.31"	95-063
	7.25"	3	Step/Pot	Through	5/16"-24	2.47"	1.94"	95-016
	7.25"	3	Step/Pot	Threaded	5/16"-24	2.22"	1.69"	95-025
	7.25"	4	Pot	Through	5/16"-24	2.84"	2.31"	95-065
	7.25"	4	Step	Threaded	5/16"-24	2.72"	2.19"	95-064
	7.25"	4	Pot	Threaded	5/16"-24	2.59"	2.06"	95-042



Flywheel Bolt Kits

Bolt kit for mounting Tilton flywheels to the engine crank shaft.

Size	Length	Socket Size	Bolts in Kit	Part Numbers
(inches)	(under head)	(inches)	(number)	
7/16"-20	.875"	1/2" 12-pt	6	95-952-6
7/16"-20	.875"	1/2" 12-pt	8	95-952-8
7/16"-20	.800"	3/4" 12-pt	6	95-975-6
7/16"-20	.800"	3/4" 12-pt	8	95-975-8
11mm x 1.5	.880"	1/2" 12-pt	6	95-940-6



Clutch-to-Flywheel Stud Kits

Clutch-to-Flywheel Stud Kits are designed to press fit into specific Tilton flywheels, such as the 110-tooth flywheel supplied in 52-Series 7.25" Rear-mount Starter Packages.

Clutch Diameter	Plate Count	Part Numbers
(inches)	(number)	
7.25"	3	95-100-6
7.25"	2	95-101-6

Driveline Accessories

Cooler Pumps



Tilton cooler pumps are ideal for pumping oil through transmission and differential coolers. They can also be used for many other applications, such as emptying fuel tanks or circulating coolant. Each pump features an internal bypass valve and is self-priming up to 8-ft above the source from which it draws. Tilton cooler pumps are a positive displacement type of pump, so their output is directly proportional to the motor speed. For example, if a lighter load increases the motor speed by 25%, then the flow rate increases by 25%.

Buna model

Designed for use with standard oils and coolants.

Viton model

Designed for use with corrosive fluids such as alcohol.

Intermittent Use Pumps

Pump Motor Duty Cycle: 1-2 hr with 15 minute cool down

P/N: 40-524 (Buna) | P/N: 40-525 (Viton)

Designed for applications where pump does not need to be used continuously, such as being turned on/off by the driver or by a relay at an established temperature. Options include Buna or Viton rubber diaphragm and check valve.

Continuous Duty Pumps

Pump Motor Duty Cycle: Up to 1000 hours continuous

P/N: 40-527 (Buna)

Designed for applications where the pump needs to operate continuously for longer than 2 hours at a time without cool down.

P/Ns:	See List
Pump head ports:	3/8" NPT
Recommended line size:	AN-8
Smallest line size:	AN-4
Flow Rate:	1-2 GPM (varies by load)
Maximum Pressure:	50 PSI
Continuous Duty Temp:	40° – 160° F (4° – 71° C)
Intermittent Use Max Temp:	265° F (130° C)

Power:	12-Volt DC
Dimensions (L x W x H):	
Intermittent Use Models:	7.63" x 3.93" x 3.62"
Continuous Duty Model:	8.57" x 3.93" x 3.62"

Weights:	
Intermittent Use Models:	3.5 lbs. (1.6 kg)
Continuous Duty Model:	5.5 lbs. (2.5 kg)

Typical Applications

- Transmission Cooler
- Differential Cooler
- Coolant Distribution
- Fuel Tank/Line Flush

Cooler Pumps	
Intermittent duty, Buna diaphragm	40-524
Intermittent duty, Viton diaphragm	40-525
Continuous duty, Buna diaphragm	40-527
Service Parts	
Diaphragm kit	
Buna	40-902
Viton	40-912
Check valve assembly	
Buna	40-934
Viton	40-935

Pedal Assemblies

Tilton offers a wide range of pedal assemblies for use in racing and high-performance applications. Pedal assemblies are available in Floor-mount, Firewall-mount and Overhung configurations. 600-Series pedal assemblies feature traditional fixed-mount master cylinder & balance bar technology and provide excellent performance at competitive prices. 900-Series pedal assemblies feature the latest in pivot-mount master cylinder technology that offers the ultimate in balance bar efficiency, providing exceptional driver feedback and repeatable braking.

600-Series Pedal Assemblies

Features

- Fully optimized for strength and weight using Finite Element Analysis (FEA).
- Traditional balance bar and fixed mounted master cylinder design.
- Large diameter 7/16" diameter balance bar minimizes flex to provide a solid pedal feel/response. PTFE coated aluminum clevises for increase durability and reduced friction.
- Oil-impregnated bronze bushing at pedal pivots.
- Adjustable pedal pads.
- Aluminum and steel pedal options.

900-Series Pedal Assemblies

Features

- Fully optimized for strength and weight using Finite Element Analysis (FEA).
- Pivot-mount master cylinders and fixed "gimbal-type" balance bar virtually eliminates brake migration through braking zone.
- Billet pedals and frame.
- Adjustable pedal ratios.
- Ball and/or needle bearings at pedal pivots.
- Adjustable pedal pads.



3-Pedal

Floor-Mount

600
series

Pedal Material:	Aluminum
Ratio:	Varies
Weight:	5.5 lbs (2.5 kg)
P/N:	72-603

Typical Applications

- Road Racing
- Endurance
- Open Wheel/Formula
- Off Road
- High Performance Street/Strip
- Circle Track
- Rally
- Drifting
- Time Attack

Forged aluminum pedals with adjustable (vertical & horizontal) foot pads and anti-slip surfaces. Ratios achievable: 5.29:1, 5.44:1, 5.61:1, 5.75:1.

Lightweight aluminum frame features guide "ramps" to reduce balance bar tipping. By reducing balance bar tipping brake repeatability is improved.

Large diameter 7/16"-20 balance bar, allowing front/rear brake bias adjustments, minimizes flex to provide a solid pedal feel/response. PTFE coated aluminum clevises for increased durability and reduced friction.

Pedal pivots feature wave washers to reduce lateral pedal movement and oil impregnated bronze bushings decrease stiction.

Frame accepts optional throttle linkage kits, to enable adjustments for either mechanical or drive-by-wire throttle controls.

Adjustable throttle pedal stops limit pedal movement in both directions. Adjustable clutch pedal stop prevents clutch over-stroking.

Throttle linkage kit

Mechanical type (shown): P/N 72-791

Drive-by-wire type: P/N 72-792*

* Designed for use with Penny & Giles TPS280DP family of sensors.



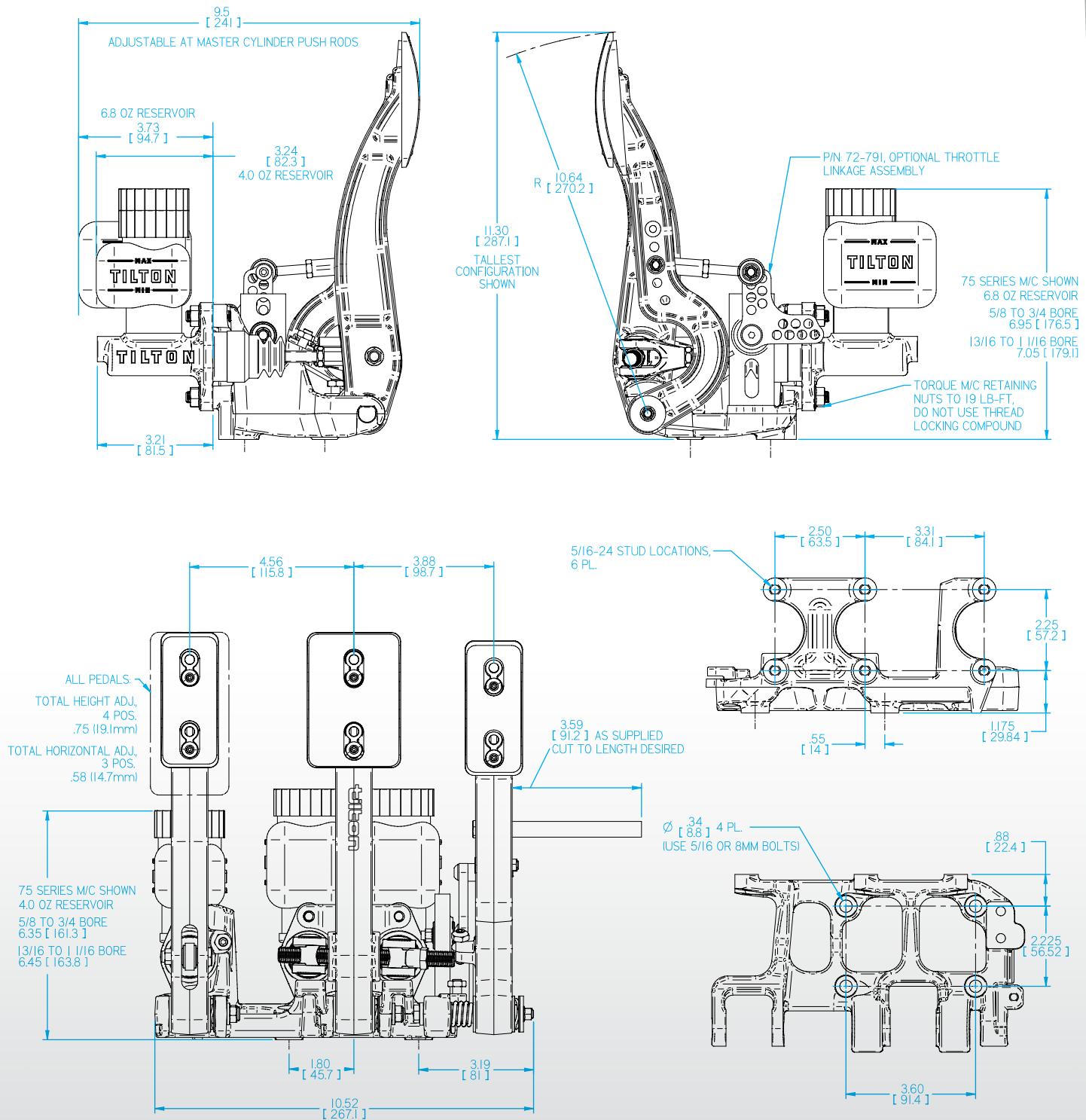
Optional Components

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Proportioning Valves	89
Flow Control Valve	89

* Does not include master cylinders

Detailed Pedal Information

Pedal assemblies do not include master cylinders



2-Pedal Floor-Mount

600
series



Pedal Material: **Aluminum**
Ratio: **Varies**
Weight: **4.6 lbs (2.1 kg)**
P/N: **72-604**

Typical Applications

- Road Racing
- Endurance
- Open Wheel/Formula
- Off Road
- High Performance Street/Strip
- Circle Track
- Rally
- Drifting
- Time Attack



Forged aluminum pedals with adjustable (vertical & horizontal) foot pads and anti-slip surfaces.
Ratios achievable: 5.29:1, 5.44:1, 5.61:1, 5.75:1.



Lightweight aluminum frame features guide "ramps" to reduce balance bar tipping. By decreasing balance bar tipping, friction is decreased and brake repeatability is improved.



Large diameter 7/16"-20 balance bar, allowing front/rear brake bias adjustments, minimizes flex to provide a solid pedal feel/response. PTFE coated aluminum clevises for increased durability and reduced friction.



Pedal pivots feature wave washers to reduce lateral pedal movement and oil impregnated bronze bushings decrease stiction.



Adjustable clutch pedal stop prevents clutch over-stroking.

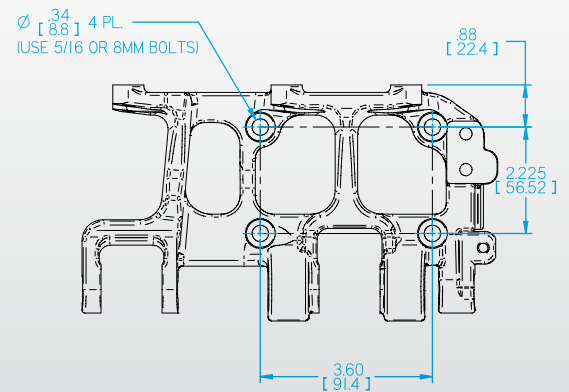
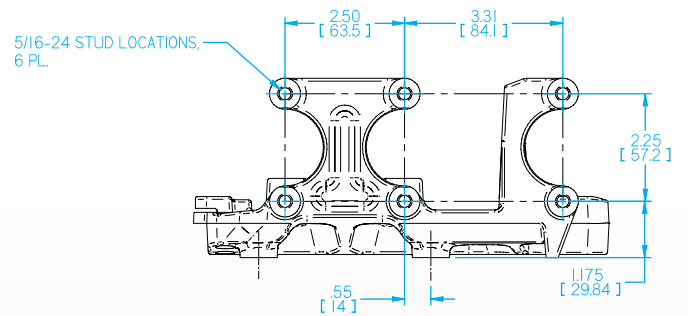
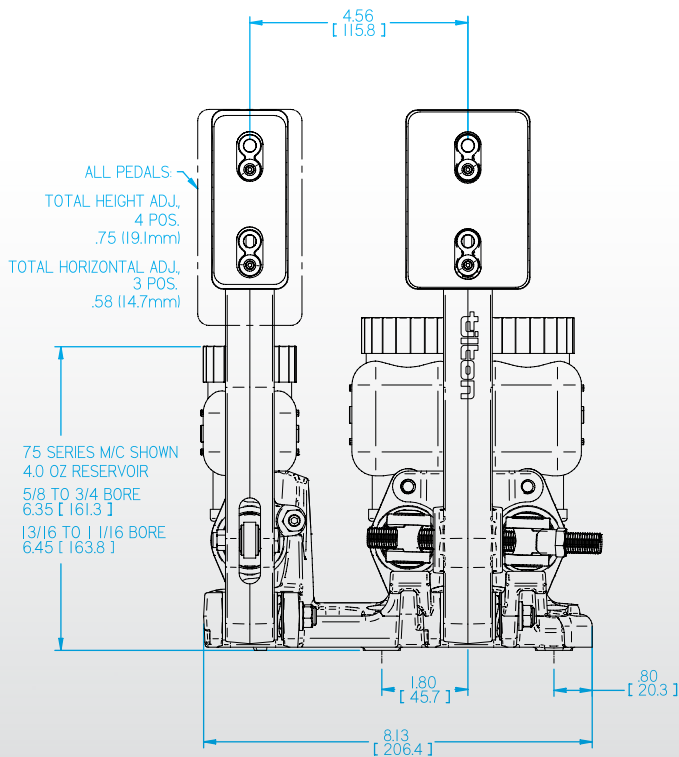
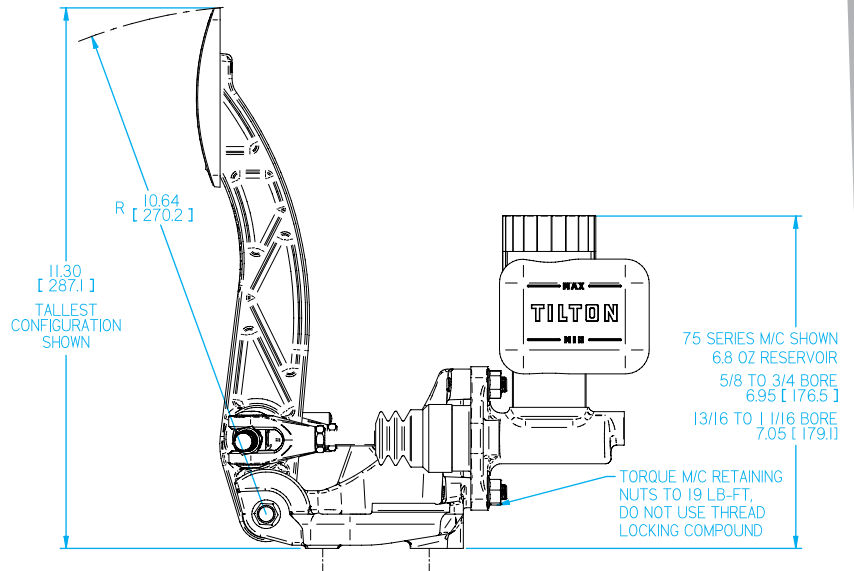
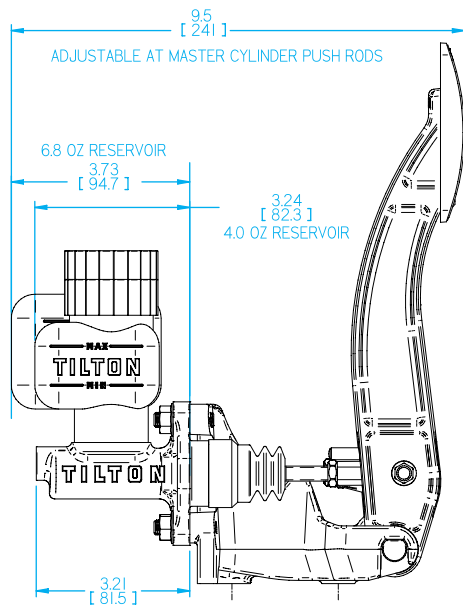
Optional Components

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Proportioning Valves	89
Flow Control Valve	89

* Does not include master cylinders

Detailed Pedal Information

Pedal assemblies do not include master cylinders



2-Pedal

Overhung-Mount

600
series

Pedal Material:	Aluminum
Ratio:	Varies
Weight:	4.8 lbs (2.2 kg)
P/N:	72-608

Typical Applications

- Road Racing
- Endurance
- Off Road
- High Performance Street/Strip
- Circle Track
- Rally
- Drifting



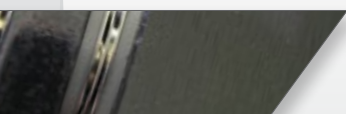
Forged aluminum pedals are engineered for high rigidity and low weight.



Lightweight aluminum frame features guide "ramps" to reduce balance bar tipping. By decreasing balance bar tipping, friction is decreased and brake repeatability is improved.



Large diameter 7/16"-20 balance bar, allowing front/rear brake bias adjustments, minimizes flex to provide a solid pedal feel/response. PTFE coated aluminum clevises for increased durability and reduced friction.



Pedal pivots feature wave washers to reduce lateral pedal movement and oil impregnated bronze bushings decrease stiction.



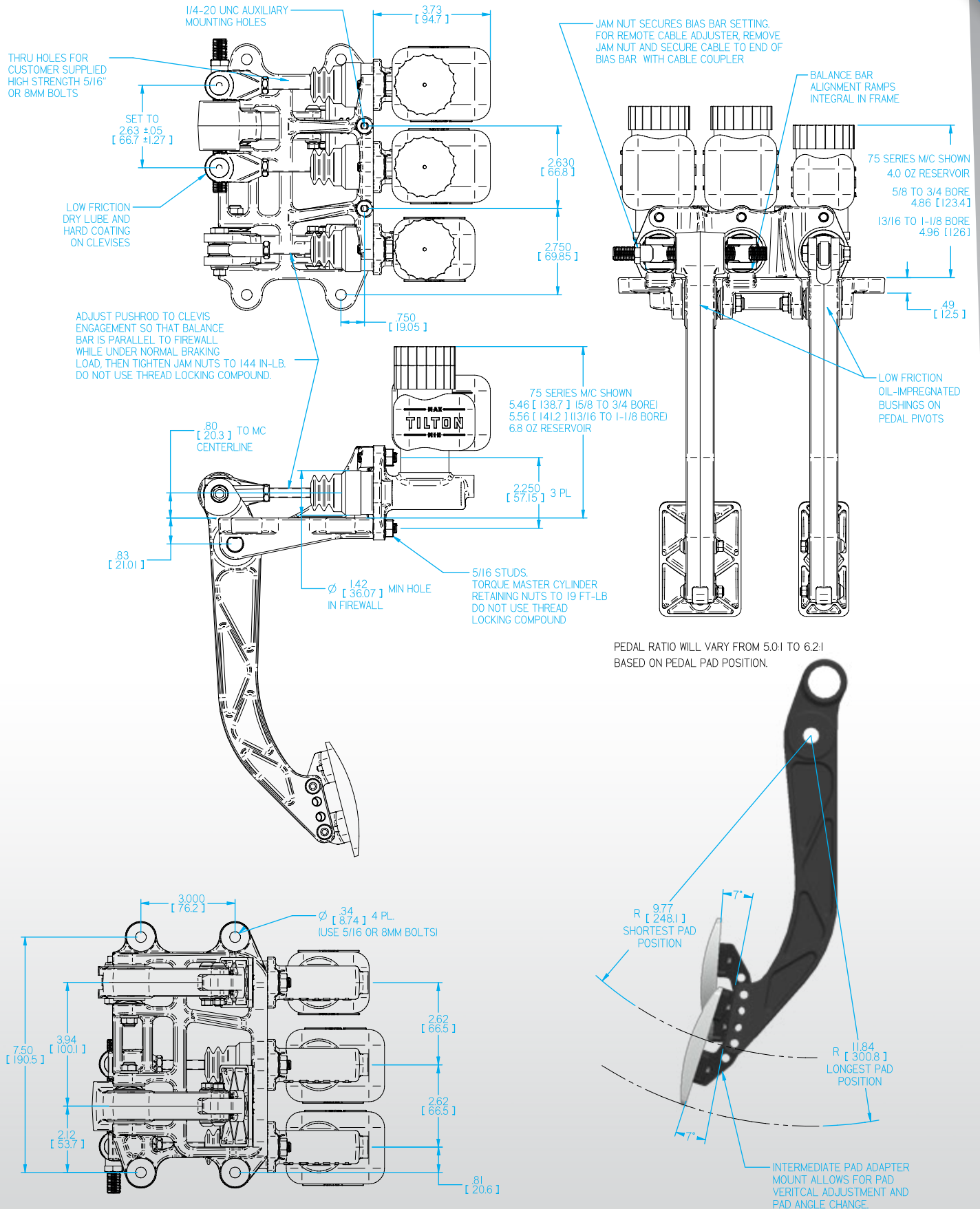
Foot pads can be adjusted vertically, horizontally and in angle to suit individual driver preferences. With two different pad sizes the customization is virtually endless.

Optional Components

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Flow Control Valve	89

Detailed Pedal Information

Pedal assemblies do not include master cylinders



ALL DIMENSIONS ARE INCHES [MM]. Full Installation Drawings are available at www.tiltonracing.com

2-Pedal

Overhung-Mount

600
series

Pedal Material:	Steel
Ratio:	6.2 : 1
Weight:	5.1 lbs (2.3 kg)
P/N:	72-606

Typical Applications

- Road Racing
- Endurance
- Off Road
- High Performance Street/Strip
- Circle Track
- Rally
- Drifting

Fabricated steel pedals with anti-slip surfaces.

Lightweight aluminum frame features guide "ramps" to reduce balance bar tipping. By decreasing balance bar tipping, friction is decreased and brake repeatability is improved.

Large diameter 7/16"-20 balance bar, allowing front/rear brake bias adjustments, minimizes flex to provide a solid pedal feel/response. PTFE coated aluminum clevises for increased durability and reduced friction.

Pedal pivots feature wave washers to reduce lateral pedal movement and oil impregnated bronze bushings decrease stiction.

Adjustable clutch pedal stop prevents clutch over-stroking.

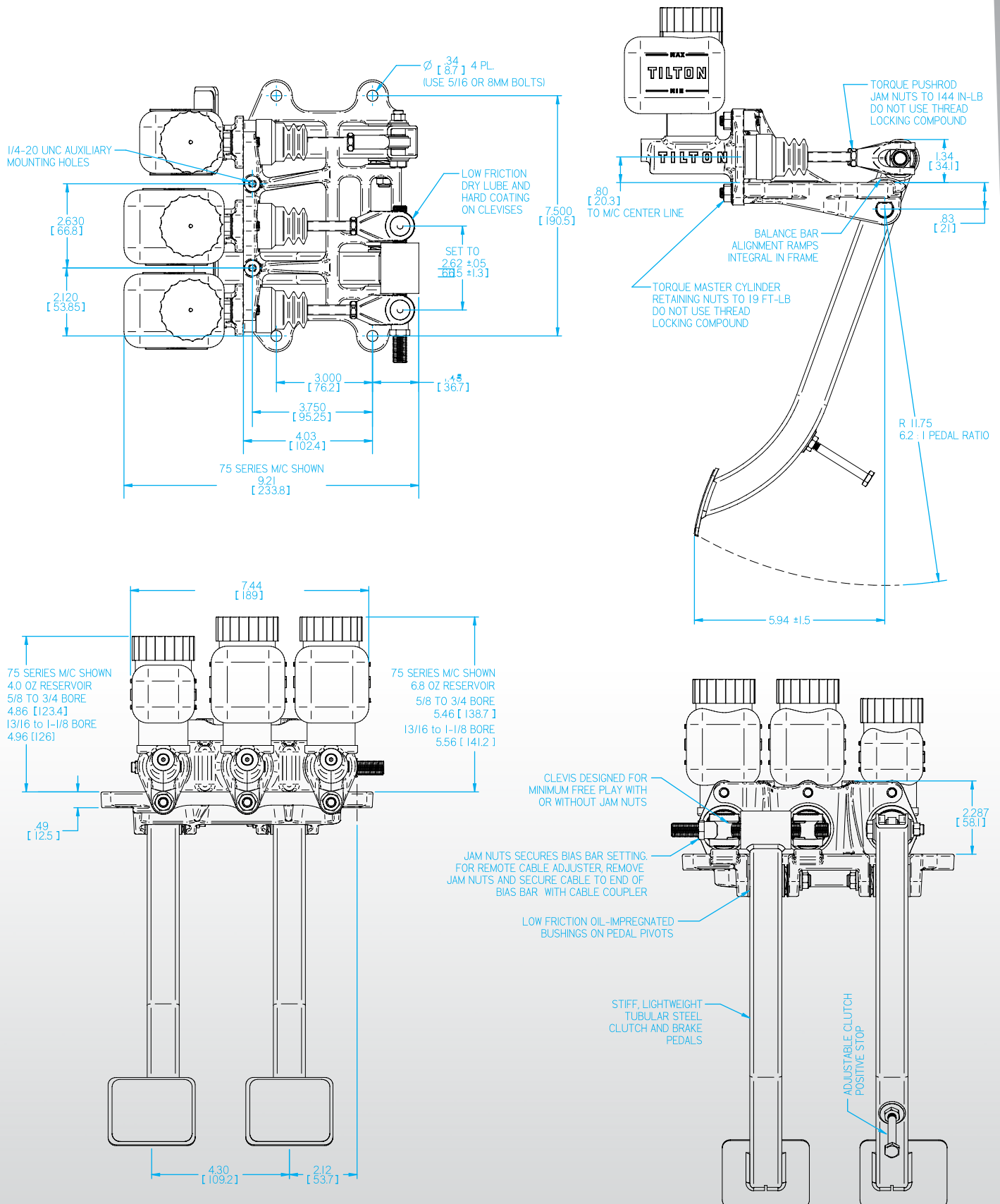
Optional Components

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Brake Bias Adjusters	88
Proportioning Valves	89
Flow Control Valve	89

* Does not include master cylinders

Detailed Pedal Information

Pedal assemblies do not include master cylinders



ALL DIMENSIONS ARE INCHES [MM]. Full Installation Drawings are available at www.tiltonracing.com

2-Pedal

Firewall-Mount

600
series

Pedal Material:	Aluminum
Ratio:	Varies
Weight:	4.8 lbs (2.2 kg)
P/N:	72-607

Typical Applications

- Road Racing
- Endurance
- Off Road
- High Performance Street/Strip
- Circle Track
- Rally
- Drifting

Forged aluminum pedals are engineered for high rigidity and low weight.

Lightweight aluminum frame features guide "ramps" to reduce balance bar tipping. By decreasing balance bar tipping, friction is decreased and brake repeatability is improved.

Large diameter 7/16"-20 balance bar, allowing front/rear brake bias adjustments, minimizes flex to provide a solid pedal feel/response. PTFE coated aluminum clevises for increased durability and reduced friction.

Pedal pivots feature wave washers to reduce lateral pedal movement and oil impregnated bronze bushings decrease stiction.

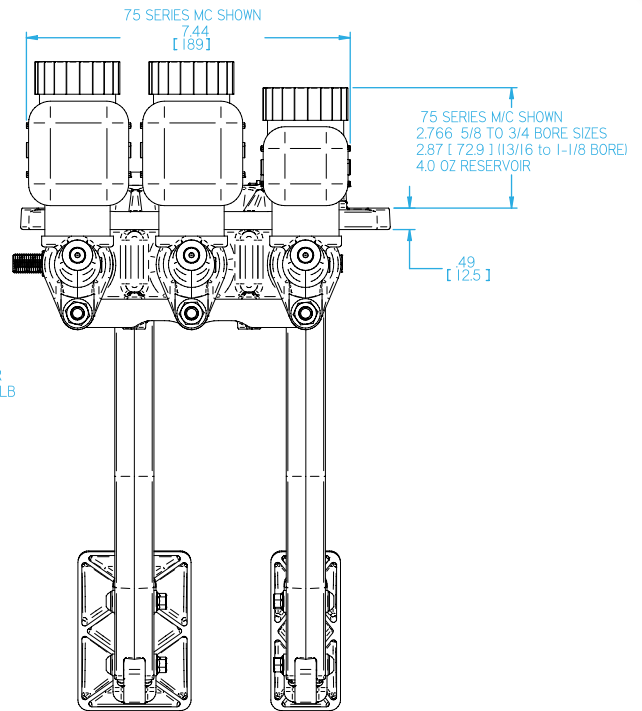
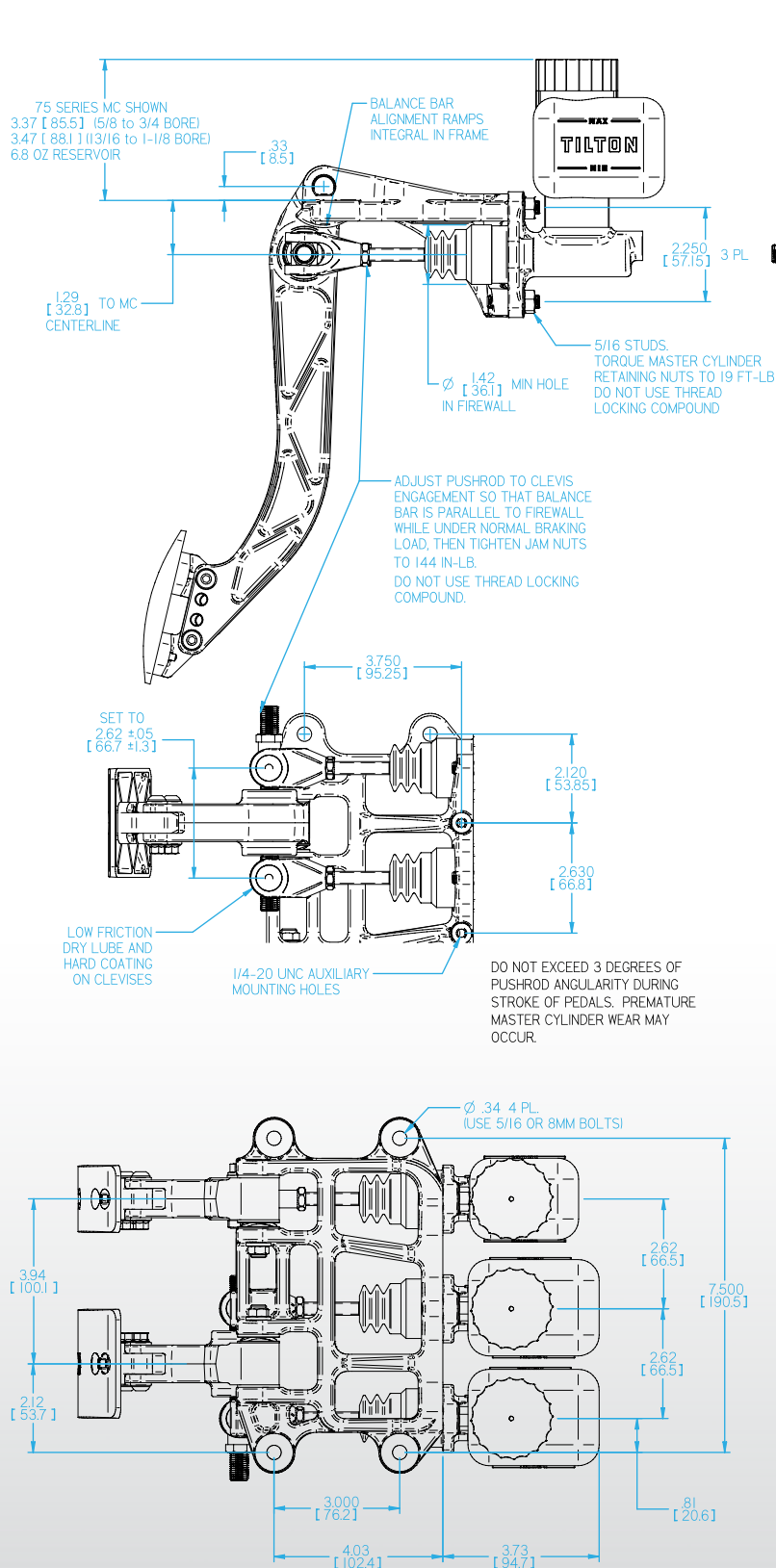
Foot pads can be adjusted vertically, horizontally and in angle to suit individual driver preferences. With two different pad sizes the customization is virtually endless.

Optional Components

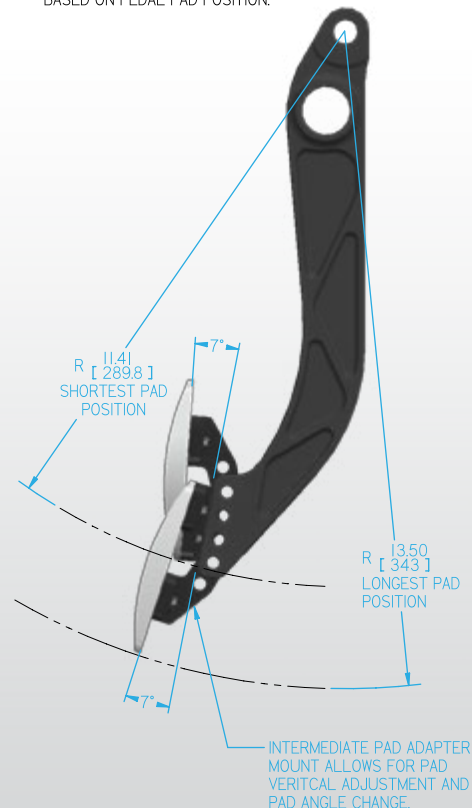
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Brake Bias Adjusters	88
Proportioning Valves	89
Flow Control Valve	89

Detailed Pedal Information

Pedal assemblies do not include master cylinders



PEDAL RATIO WILL VARY FROM 5.0:1 TO 6.2:1
BASED ON PEDAL PAD POSITION.



2-Pedal

Firewall-Mount

600
series

Pedal Material:	Steel
Ratio:	6.2 : 1
Weight:	4.6 lbs (2.2 kg)
P/N:	72-601

Typical Applications

- Road Racing
- Endurance
- Off Road
- High Performance Street/Strip
- Circle Track
- Rally
- Drifting

Fabricated steel pedals with anti-slip surfaces.

Lightweight aluminum frame features guide "ramps" to reduce balance bar tipping. By decreasing balance bar tipping, friction is decreased and brake repeatability is improved.

Large diameter 7/16"-20 balance bar, allowing front/rear brake bias adjustments, minimizes flex to provide a solid pedal feel/response. PTFE coated aluminum clevises for increased durability and reduced friction.

Pedal pivots feature wave washers to reduce lateral pedal movement and oil impregnated bronze bushings decrease stiction.

Adjustable clutch pedal stop prevents clutch over-stroking.

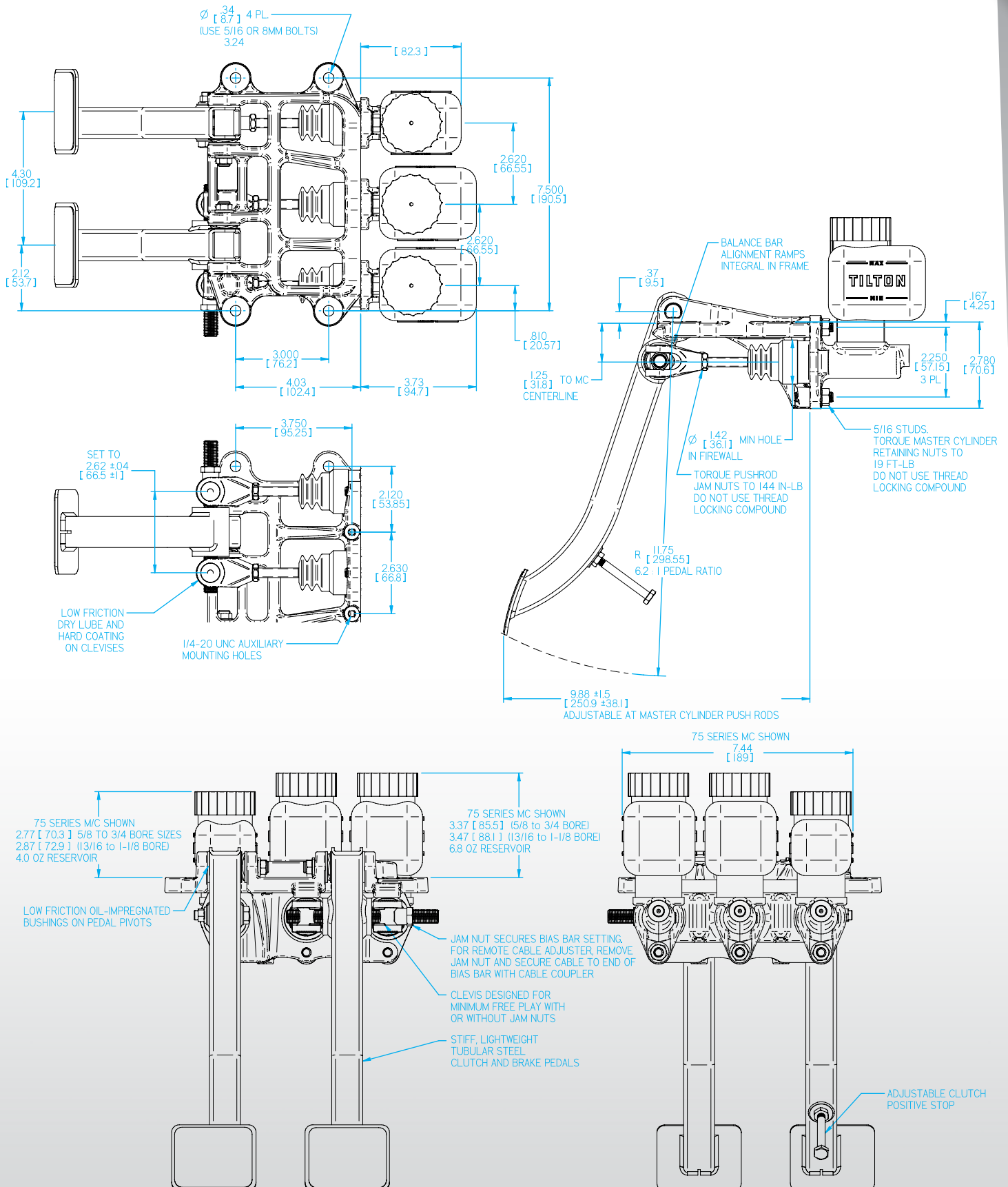
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Flow Control Valve	89

* Does not include master cylinders

Detailed Pedal Information

Pedal assemblies do not include master cylinders



ALL DIMENSIONS ARE INCHES [MM]. Full Installation Drawings are available at www.tiltonracing.com

3-Pedal

Floor-Mount

900
series

Pedal Material:	Aluminum
Ratio:	Varies
Weight:	5.0 lbs (2.3 kg)
P/N:	72-903

Typical Applications

- Road Racing
- Endurance
- Open Wheel/Formula
- Off Road
- High Performance Street/Strip
- Circle Track
- Rally
- Drifting
- Time Attack



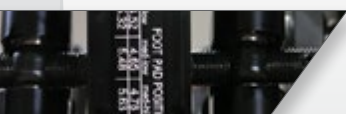
Pivot-mount master cylinders and fixed "gimbal-type" balance bar virtually eliminates the common problem of rear brake bias migration through the braking zone.



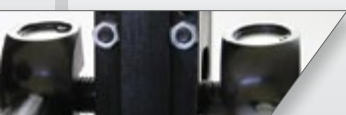
Billet aluminum pedal frame and pedals with adjustable foot pads and anti-slip surfaces.



7/16"-20 balance bar allows front/rear brake bias adjustments and maximum rigidity.



8 ratios available (4.52:1, 4.65:1, 4.78:1, 4.91:1, 5.32:1, 5.48:1, 5.63:1, 5.80:1), enabling the brake pedal to be tuned for driver preference without changing the master cylinder bore size.



Integrated angle limit in case of front or rear brake circuit failure. Longer clevis for increased front master cylinder stroke.



Adjustable throttle pedal stops limit pedal movement in both directions and adjustable clutch pedal stop prevents clutch over-stroking.

Throttle linkage kit

Mechanical type (shown): P/N 72-791

Drive-by-wire type: P/N 72-792*

* Designed for use with Penny & Giles TPS280DP family of sensors.



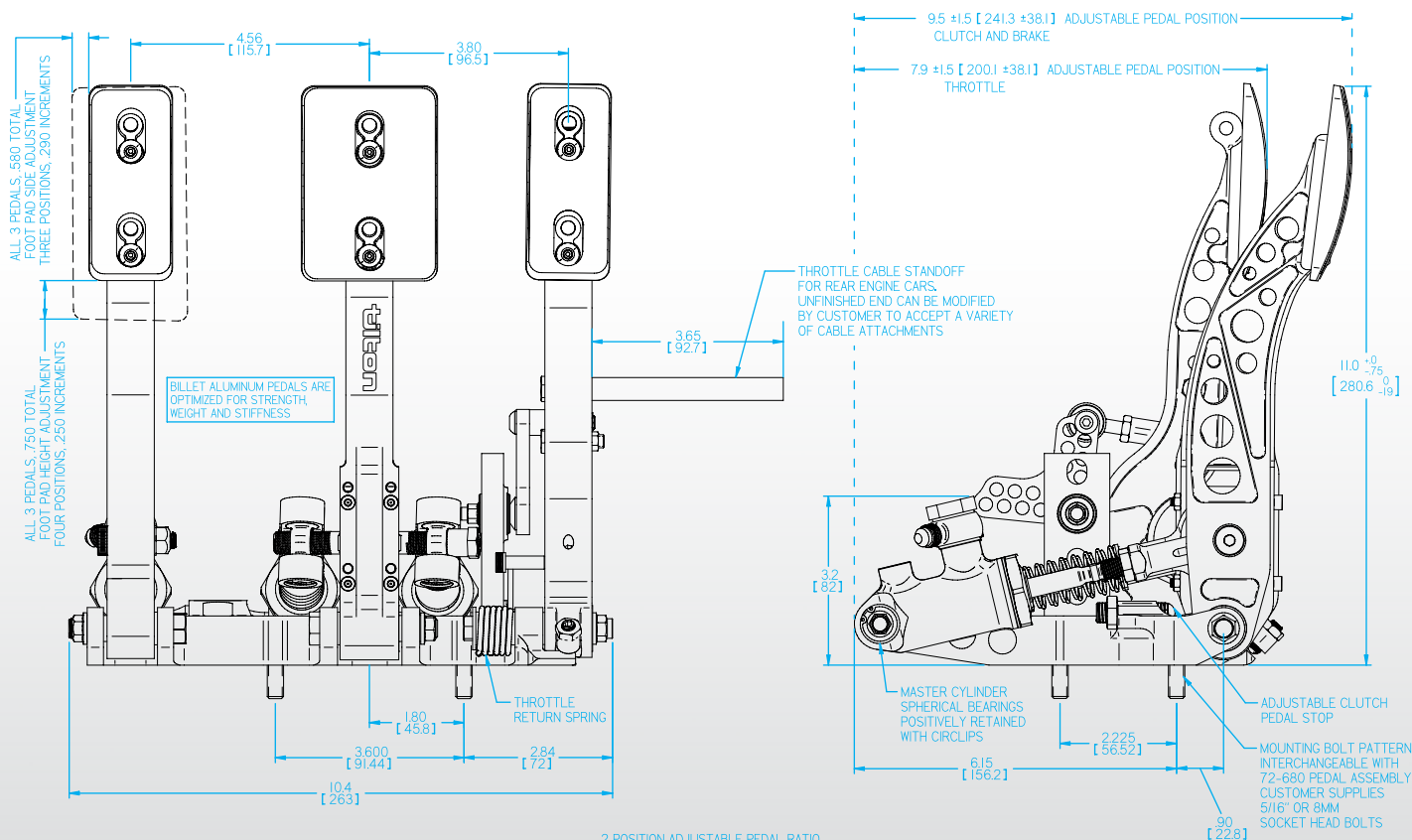
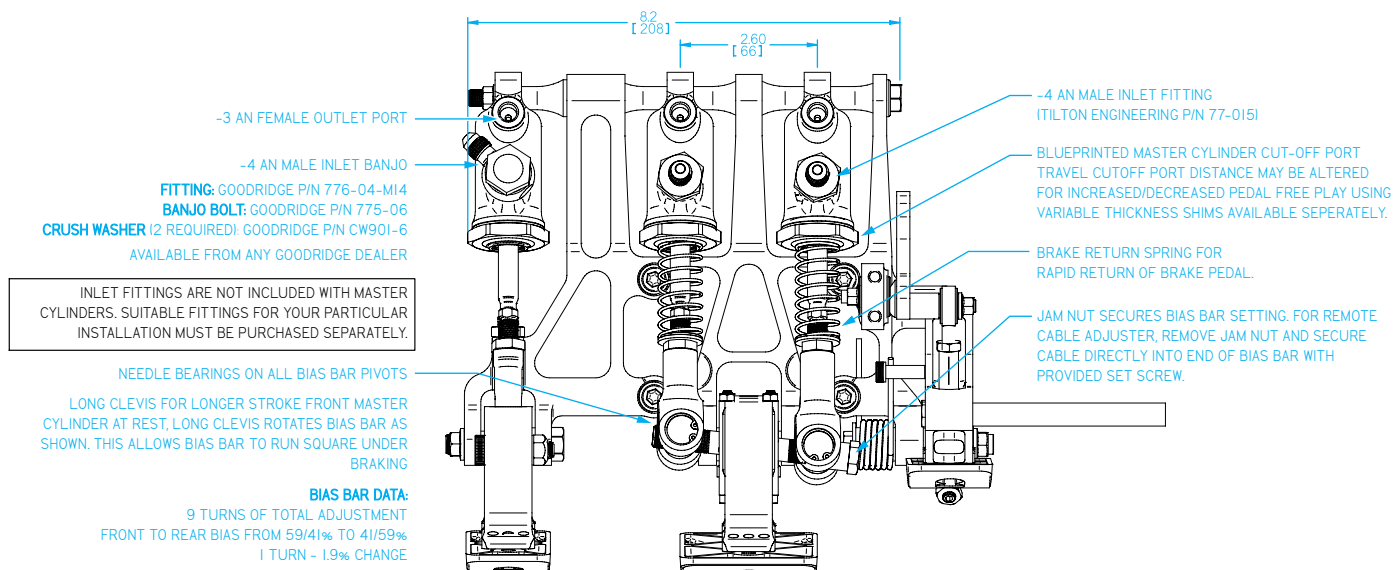
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900-Series Balance Bar	90

* Does not include master cylinders

Detailed Pedal Information

Pedal assemblies do not include master cylinders



PIVOT POSITION	FOOT PAD POSITION			
	low	med-low	med-hi	high
H	4.52	4.65	4.78	4.91
L	5.32	5.48	5.63	5.80

2-Pedal

Overhung-Mount

900
series

Pedal Material:	Aluminum
Ratio:	Varies
Weight:	4.4 lbs (2.0 kg)
P/N:	72-902

Typical Applications

- Road Racing
- Endurance
- Off Road
- High Performance Street/Strip
- Circle Track
- Rally
- Drifting



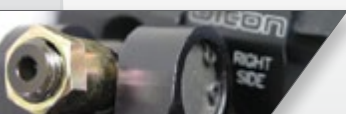
Pivot-mount master cylinders and fixed "gimbal-type" balance bar virtually eliminates the common problem of rear brake bias migration through the braking zone.



Billet aluminum pedal frame and pedals with adjustable foot pads and anti-slip surfaces.



7/16"-20 balance bar allows front/rear brake bias adjustments. 3 ratios achievable (6.2:1, 5.5:1, 4.7:1), enabling the brake pedal to be tuned for driver preference without changing the master cylinder bore size.



Integrated angle limit in case of front or rear brake circuit failure. Longer clevis for increased front master cylinder stroke.



Needle bearings utilized at all pedal pivots.



Adjustable clutch pedal stop prevents clutch over-stroking.

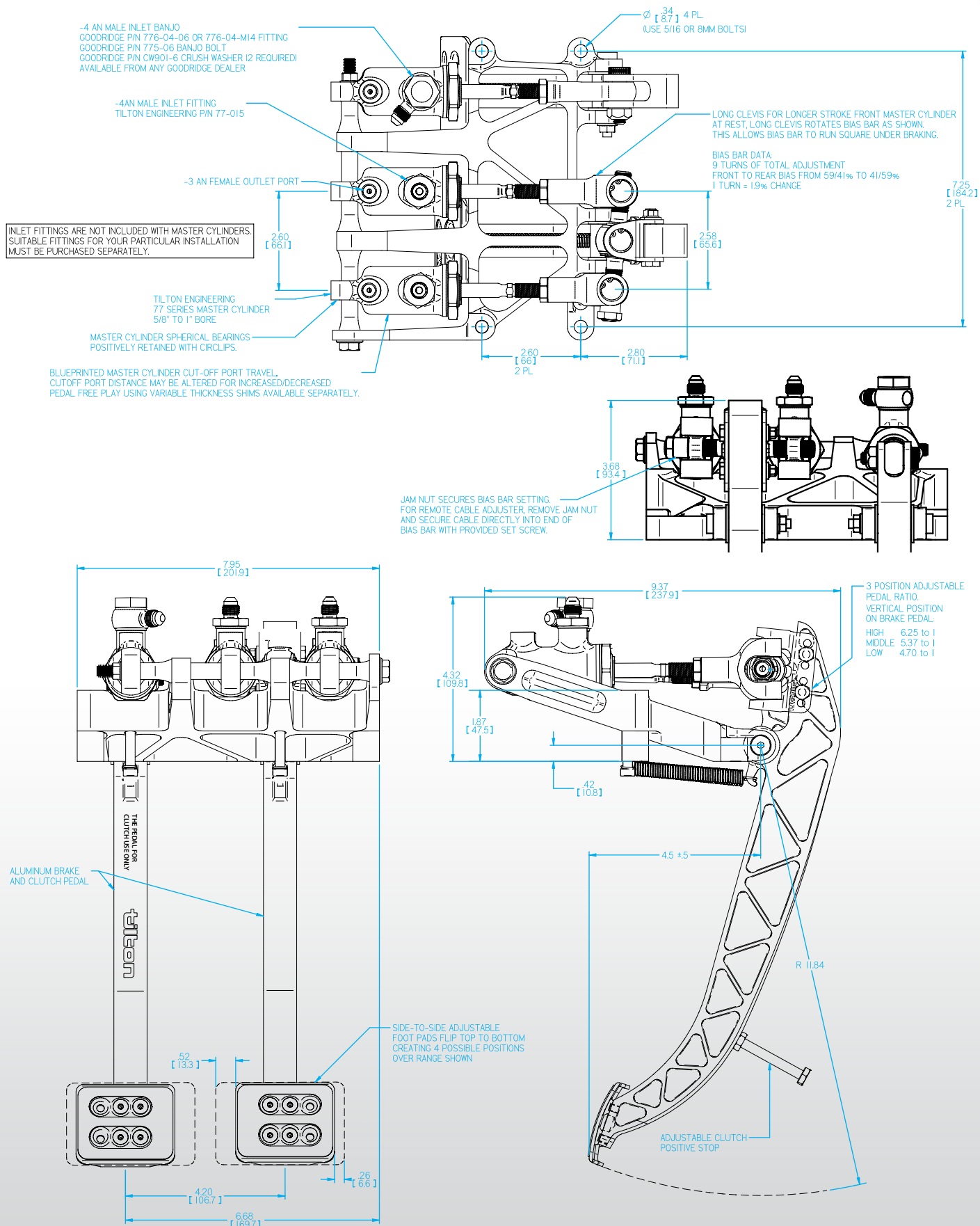
Optional Components

Master Cylinders	Page
77-Series Master Cylinders	80
Accessories	Page
3-in-1 Plastic Reservoir	86
3-in-1 Billet Reservoir	87
Brake Bias Adjusters	88
Proportioning Valves	89
Flow Control Valve	89
900-Series Balance Bar	90

** Does not include master cylinders*

Detailed Pedal Information

Pedal assemblies do not include master cylinders



ALL DIMENSIONS ARE INCHES [MM]. Full Installation Drawings are available at www.tiltonracing.com

2-Pedal

Firewall-Mount

900
series

Pedal Material:	Aluminum
Ratio:	Varies
Weight:	4.9 lbs (2.2 kg)
P/N:	72-901

Typical Applications

- Road Racing
- Endurance
- Off Road
- High Performance Street/Strip
- Circle Track
- Rally
- Drifting



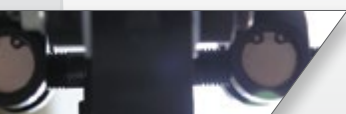
Pivot-mount master cylinders and fixed "gimbal-type" balance bar virtually eliminates the common problem of brake bias migration through the braking zone.



Billet aluminum frame and clutch pedal with adjustable foot pads and anti-slip surface.



Billet steel brake pedal with adjustable foot pads and anti-slip surface (meets NASCAR rules).



7/16"-20 balance bar allows front/rear brake bias adjustments. 3 ratios achievable (6.2:1, 5.5:1, 4.7:1), enabling the brake pedal to be tuned for driver preference without changing the master cylinder bore size.



Needle bearings utilized at all pedal pivots.

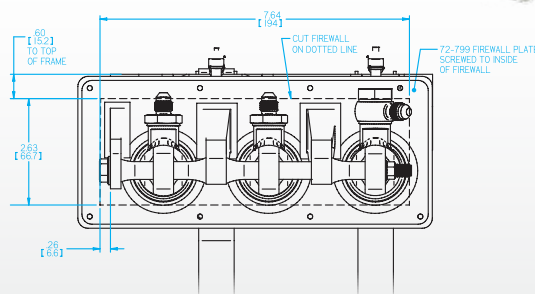


Adjustable clutch pedal stop prevents clutch over-stroking.

Firewall Plate kit

Designed specifically for the 900-Series Firewall-mount pedal assembly, this plate creates a barrier between engine compartment and cockpit.

Firewall Plate: **P/N 72-799**



Optional Components

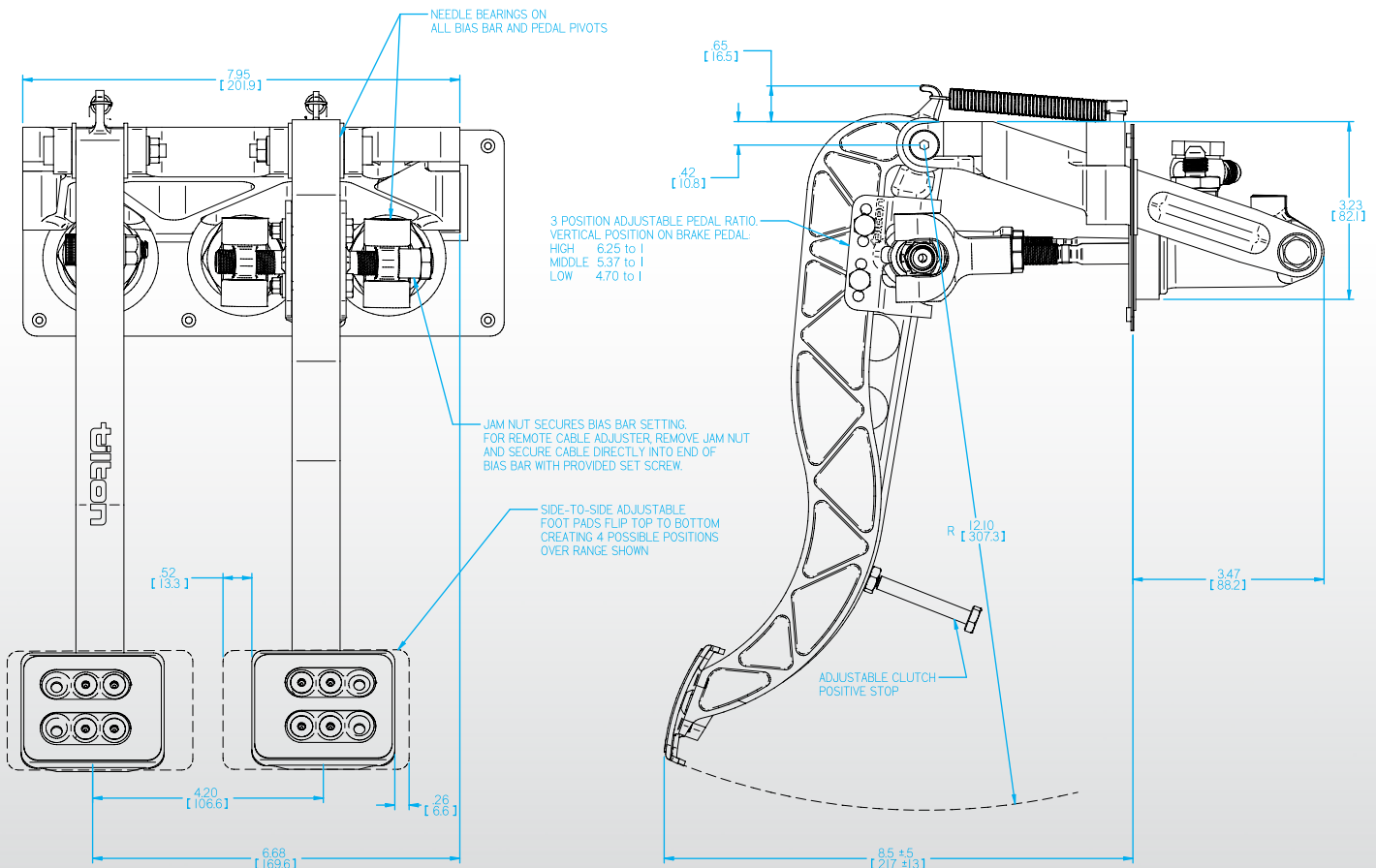
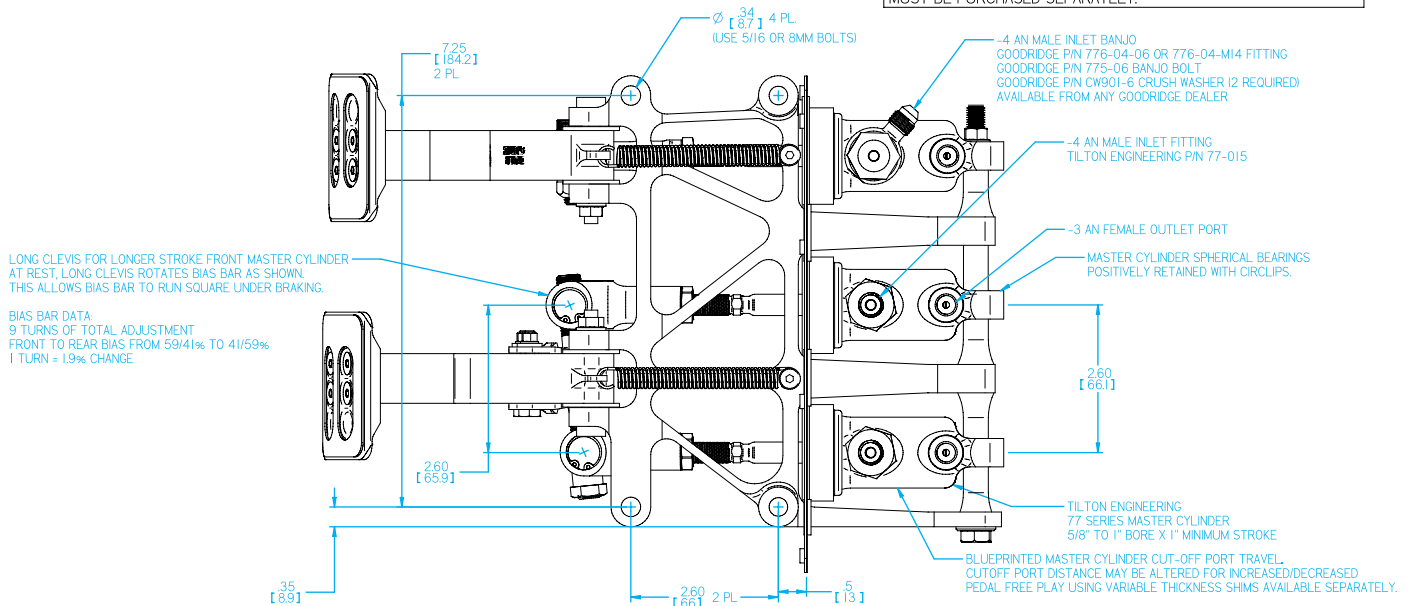
Master Cylinders	Page
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900-Series Balance Bar	90

* Does not include master cylinders

Detailed Pedal Information

Pedal assemblies do not include master cylinders

INLET FITTINGS ARE NOT INCLUDED WITH MASTER CYLINDERS. SUITABLE FITTINGS FOR YOUR PARTICULAR INSTALLATION MUST BE PURCHASED SEPARATELY.



Master Cylinders

77-Series



Features

- Billet aluminum body profile is optimized for each bore size, providing the highest levels of strength/stiffness while minimizing weight.
- Hand-built and blueprinted for cut-off port travel. Cut-off port travel may be tuned for increased or decreased pedal free-play using optional shims.
- Proprietary low-friction coatings minimize wear and provide smooth operation.
- Spherical bearing (rear pivot) is positively retained with snap rings.
- 1.1" of stroke provides the fluid displacement needed for a wide variety of applications.
- AN-3 outlet port.
- AN-6 crush washer seal inlet port.
- Weighs .30 lbs (varies by bore size).

77-Series master cylinders offer the latest in racing master cylinder technology in a very lightweight and compact design. The rear spherical bearing mount and one-piece piston/pushrod eliminate side thrust into the master cylinder bore, providing consistent and repeatable braking. 77-Series master cylinders are designed specifically for use with Tilton 900-Series pedal assemblies and balance bars.

Bore Size	Part Numbers
5/8" (15.88mm)	77-625
7/10" (17.78mm)	77-700
3/4" (19.05mm)	77-750
13/16" (20.64mm)	77-812
7/8" (22.23mm)	77-875
15/16" (23.81mm)	77-937
1" (25.40mm)	77-1000

Optional Component	Part Number
--------------------	-------------

Inlet Fitting

AN-6 crush washer seal to AN-4 male 77-015



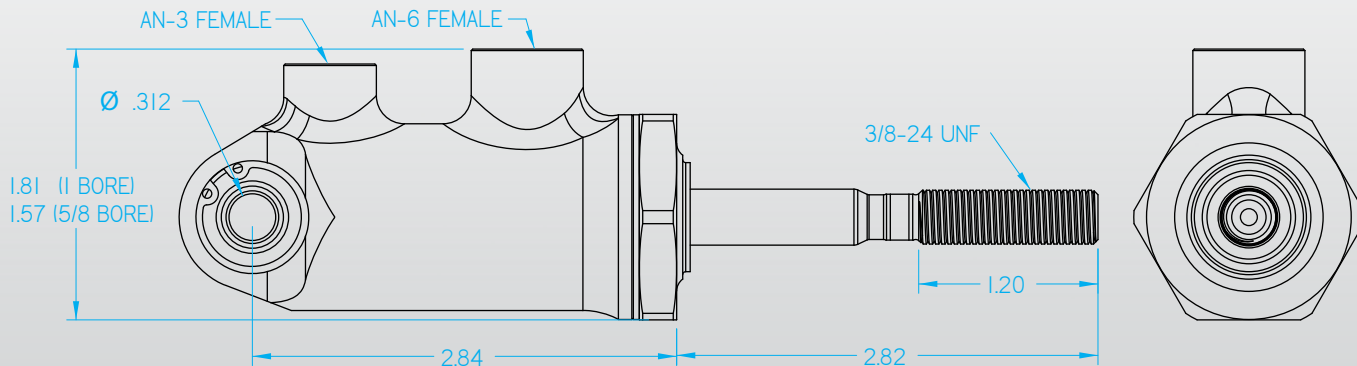
Cut-off Port Shim Kits (5 shims in each kit)



Bore Size:	5/8" 7/10" 3/4"	13/16" 7/8"	15/16" 1"
Thickness	.020" Shim 77-412-20-5	77-414-20-5	77-416-20-5
.030" Shim 77-412-30-5		77-414-30-5	77-416-30-5
.040" Shim 77-412-40-5		77-414-40-5	77-416-40-5
.050" Shim 77-412-50-5		77-414-50-5	77-416-50-5
.060" Shim 77-412-60-5		77-414-60-5	77-416-60-5

Service Parts

Bore Size	Seal	Seal Shim	Spring	Guide Pin	Bearing
5/8"	75-310	75-060	75-010	75-020	COM-5
7/10"	75-311	75-061	75-010	75-020	COM-5
3/4"	75-312	75-062	75-010	75-020	COM-5
13/16"	75-313	75-063	75-010	75-020	COM-5
7/8"	75-314	75-064	75-010	75-020	COM-5
15/16"	75-315	75-065	75-010	75-020	COM-5
1"	75-316	75-066	75-010	75-020	COM-5



M/C 76-Series

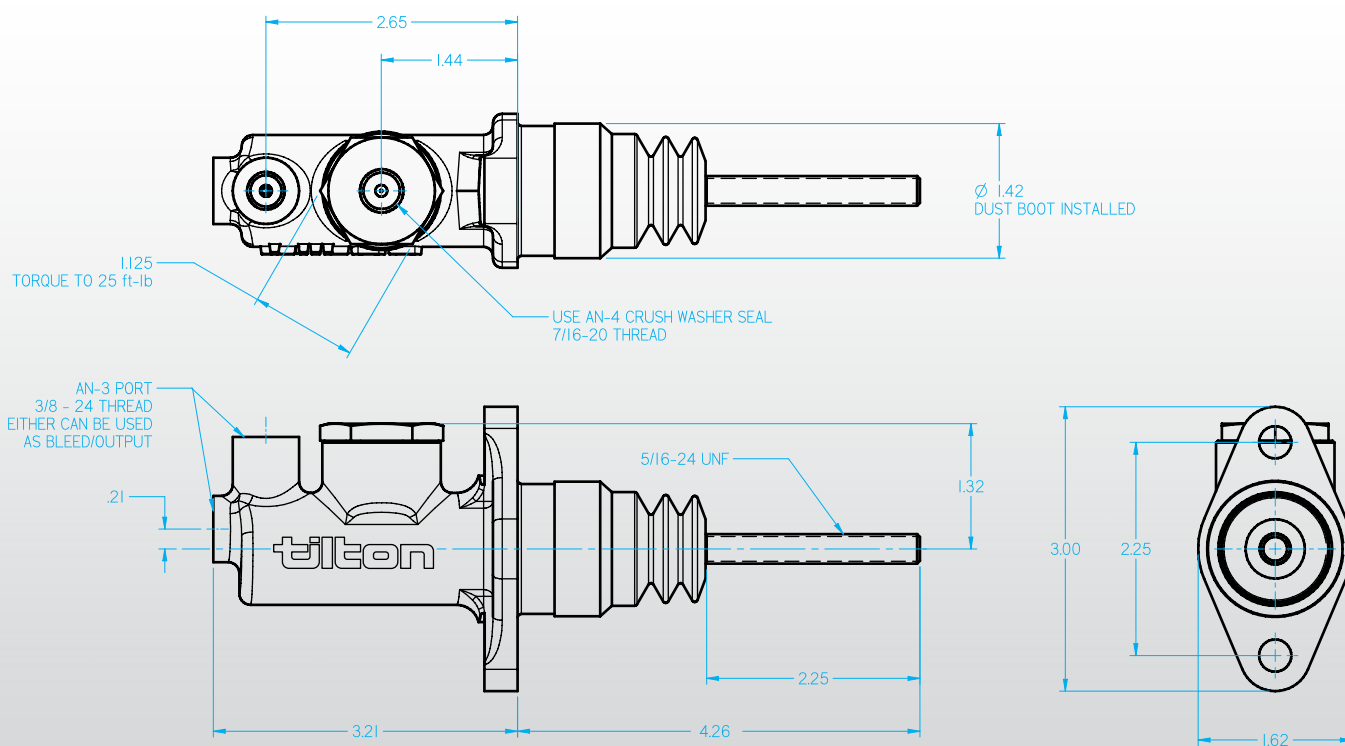


Features

- Aluminum alloy body is black anodized for corrosion resistance.
- 1.1" of stroke provides the fluid displacement needed for a wide variety of applications.
- Industry standard 2.25" (center-to-center) front flange mount.
- Dual AN-3 outlet ports.
 - Top and rear port options allow for greater flexibility with plumbing.*
 - Factory installed port plug can be removed so that a bleed fitting, brake pressure sensor or brake light switch could be fitted.*
- Top outlet port is compatible with both AN-3 and banjo fittings. Both outlet ports can be used with standard fitting without the need for modification or adapters.
- AN-4 inlet port adapter.
- Weighs .69 lbs (varies by bore size).

76-Series master cylinders share a similar compact body as the Tilton 75-Series, but feature an AN-4 (7/16"-20) inlet port adapter, designed to accept AN-4 fittings when remote-mounted reservoirs are used. Dual outlet ports allow for flexibility for brake line plumbing and enables maximum clearance.

Bore Size	Part Numbers
5/8" (15.88mm)	76-625
7/10" (17.78mm)	76-700
3/4" (19.05mm)	76-750
13/16" (20.64mm)	76-812
7/8" (22.23mm)	76-875





75-Series master cylinders are designed for applications where space limitations require a compact master cylinder. 75-Series master cylinders are 2.4" shorter than 74-Series master cylinders, but maintain a full 1.1" of stroke.

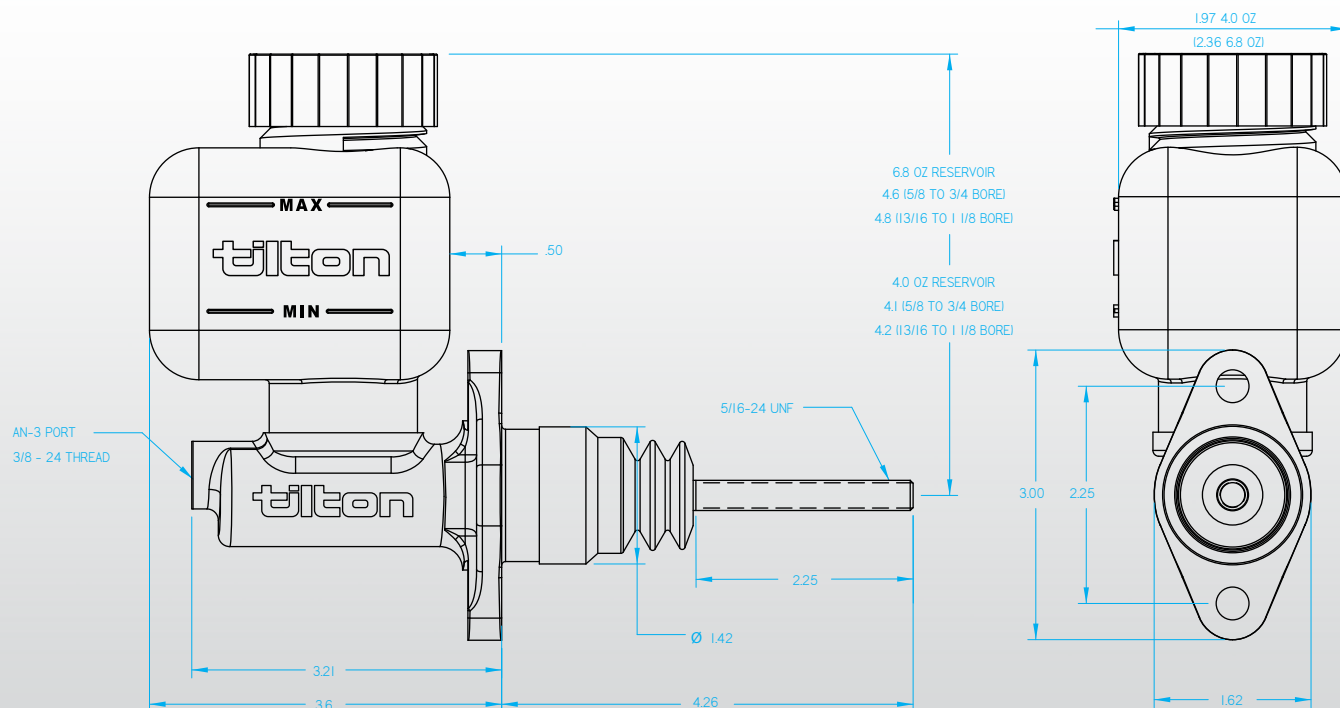
Universal Kit Includes

Master cylinder, 4.0 oz and 6.8 oz reservoirs (with filters and clamps), remote reservoir mounting components and fittings.

Features

- Aluminum alloy body is black anodized for corrosion resistance.
- 1.1" of stroke provides the fluid displacement needed for a wide variety of applications.
- Industry standard 2.25" (center-to-center) front flange mount.
- AN-3 outlet port.
- Weighs .63 lbs (varies by bore size).

Bore Size	Part Numbers
5/8" (15.88mm)	75-625U
7/10" (17.78mm)	75-700U
3/4" (19.05mm)	75-750U
13/16" (20.64mm)	75-812U
7/8" (22.23mm)	75-875U
1" (25.40mm)	75-1000U



M/C 74-Series Kit



Features

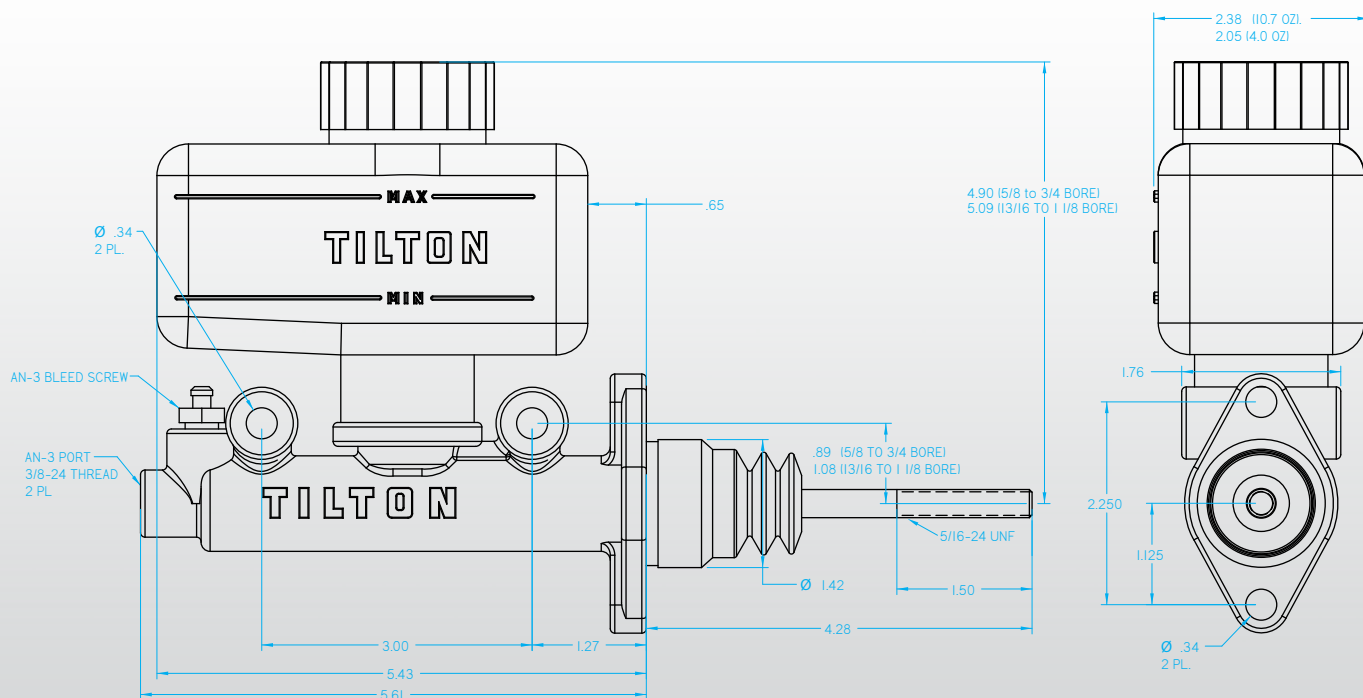
- Aluminum alloy body is clear anodized for corrosion resistance.
- 1.1" of stroke provides the fluid displacement needed for a wide variety of applications.
- Industry standard 2.25" (center-to-center) front flange mount and side-mounting options.
- Dual AN-3 outlet ports provide flexibility for brake line routing.
- Weighs .94 lbs (varies by bore size).

74-Series master cylinder kits offer great flexibility at an affordable price. Continuously improved since their introduction in 1986, the venerable 74-Series master cylinder has become a trusted favorite of car builders and race teams due to its reliability and value.

Universal Kit Includes

Master cylinder, 4.0 oz and 10.7 oz reservoirs (with filters and clamps), remote reservoir mounting components and fittings.

Bore Size	Part Numbers
5/8" (15.88mm)	74-625U
7/10" (17.78mm)	74-700U
3/4" (19.05mm)	74-750U
13/16" (20.64mm)	74-812U
7/8" (22.23mm)	74-875U
1" (25.40mm)	74-1000U
1 1/8" (28.58mm)	74-1125U



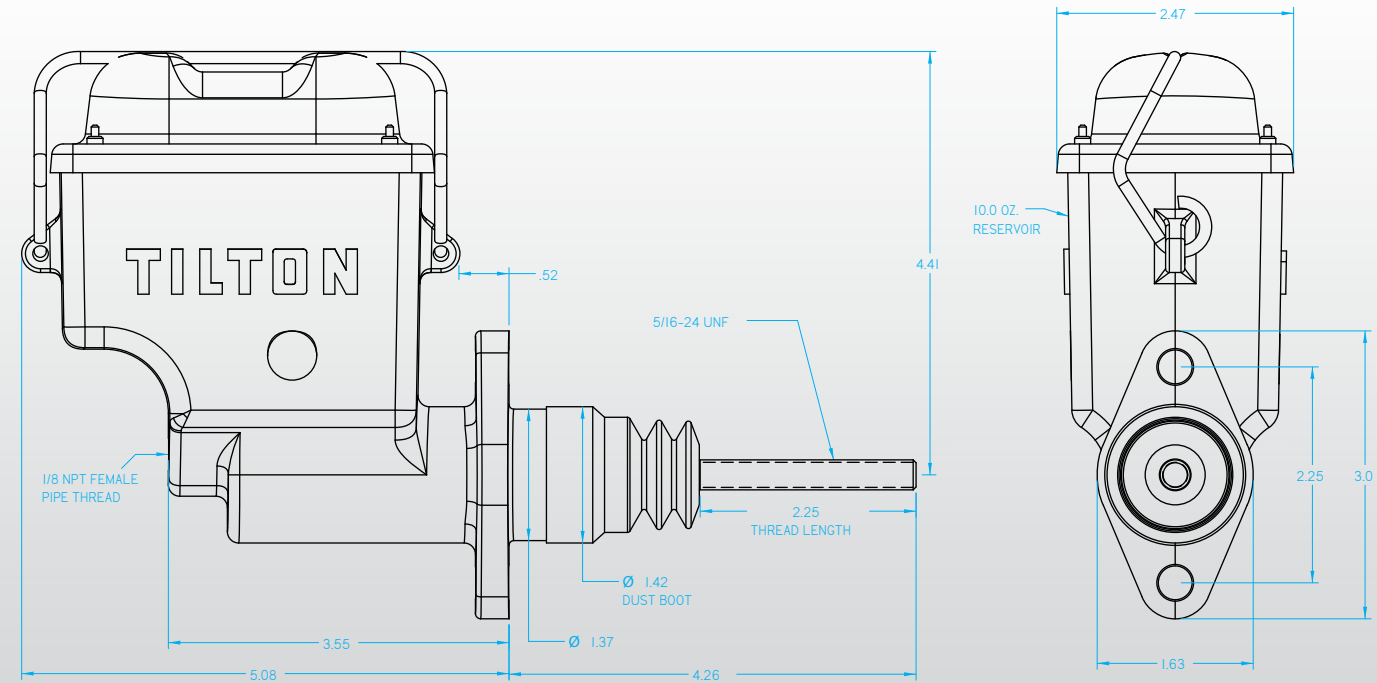
M/C 73-Series



Features

- High pressure die-cast aluminum body provides a machined-look finish.
- 1.1" of stroke provides the fluid displacement needed for a wide variety of applications.
- Industry standard 2.25" (center-to-center) front flange mount.
- Integral 10.0 oz reservoir provides plentiful fluid capacity.
- Internal baffle within reservoir keeps port covered with fluid if reservoir fluid level runs low.
- Bellows forms a non-vented seal and keeps elements away from brake fluid.
- Lid designed for easy removal. Features a high-tensile steel spring closure, designed to provide consistent clamp force, for a leak proof seal.
- 1/8" NPT outlet port, shrouded underneath reservoir to minimize the chance of fitting damage.
- Weighs 1.40 lbs (varies by bore size).

Bore Size	Part Numbers
3/4" (19.05mm)	73-750
7/8" (22.23mm)	73-875
1" (25.40mm)	73-1000



Not designed for use with Anti-lock Brake Systems (ABS)

M/C

Rebuild Kits
Service Parts

Master Cylinder Rebuild Kits

Includes master cylinder internals and dust boot.

Bore Size	74-Series	75-Series	76-Series	77-Series
5/8" (15.88mm)	74-625RK	75-625RK	76-625RK	77-625RK
7/10" (17.78mm)	74-700RK	75-700RK	76-700RK	77-700RK
3/4" (19.05mm)	74-750RK	75-750RK	76-750RK	77-750RK
13/16" (20.64mm)	74-812RK	75-812RK	76-812RK	77-812RK
7/8" (22.23mm)	74-875RK	75-875RK	76-875RK	77-875RK
15/16" (23.81mm)	74-937RK	75-937RK	76-937RK	77-937RK
1" (25.40mm)	74-1000RK	75-1000RK	76-1000RK	77-1000RK
1 1/8" (28.58mm)	74-1125RK	75-1125RK	N/A	N/A

Master Cylinder Service Parts



Description	Label	74-Series	75-Series	76-Series
Reservoir, 4.0 oz	A	74-202	74-202	N/A
Reservoir, 6.8 oz	B	74-203	74-203	N/A
Reservoir, 10.7 oz	C	74-204	74-204	N/A
Filter, 4.0 and 6.8 oz reservoirs	D	74-210	74-210	N/A
Filter, 10.7 oz reservoirs	E	74-211	74-211	N/A
Cap, reservoir	F	74-207	74-207	N/A
Clamp, reservoir	G	74-208	74-208	N/A
O-ring, master cylinder/reservoir	N/A	74-212-B	74-212-A	N/A
Pushrod	N/A	74-400	75-030	75-030
Remote reservoir mount bracket with o-ring	H	74-212	74-212	N/A
Remote Inlet Adapter	I	74-200	74-200	N/A
O-ring, remote mount bracket	N/A	74-212-A	74-212-A	N/A
Hose Kit, 96", incl. 6 clamps	N/A	74-221	74-221	N/A
Hose, 24"	J	74-214	74-214	N/A
Hose, bulk, sold by the foot	N/A	72-502	72-502	N/A
Fitting, union, AN-3 male/male	K	73-820	73-820	73-820
Fitting, AN-3 male to 3/16" female	L	TE2089-188L	TE2089-188L	TE2089-188L
Bleedscrew, AN-3	N/A	28696	N/A	N/A



Reservoirs

3-Chamber Plastic



Features

- Fiberglass reinforced nylon material.
- Three separate internal reservoirs allow for complete evacuation of one without affecting the remaining two.
- Gasket-sealed removable lid allows for easy cleaning.
- Reservoir lid features safety screens to prevent foreign objects (nuts, bolts) from falling into reservoir.
- Leak-proof baffle design ensures that fluid remains in reservoir.
- Convenient fluid level indicator windows on the reservoir body.
- 2-hole mount provides simple installation onto firewall/bulkhead.
- Two model available; Push-on type for use with rubber hose and clamps, or AN-4 type for use with AN-4 braided lines.

Tilton's popular 3-Chamber Aluminum Reservoir is now available in a newly designed plastic version. These new reservoirs incorporate many features found in the billet aluminum version at a price that meets most budgets.

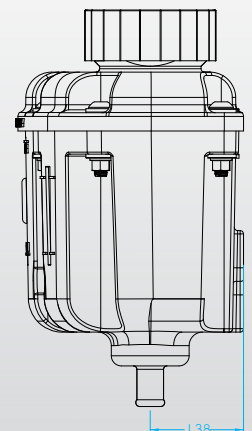
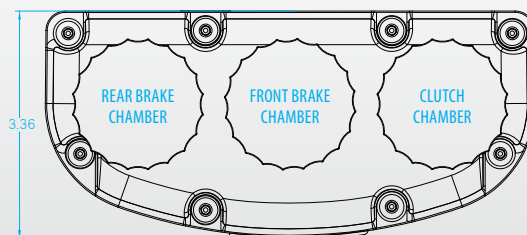
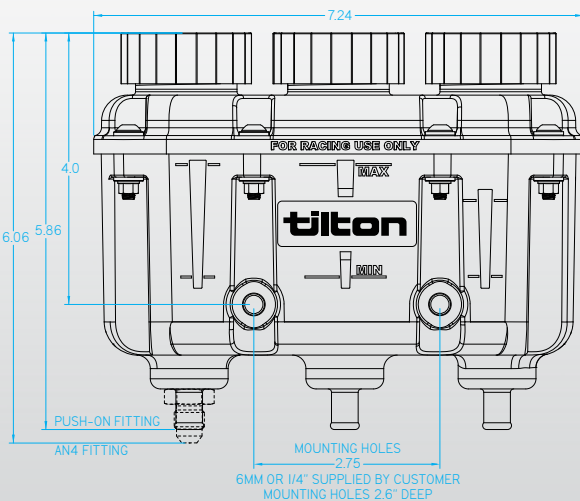
There is no longer a reason to use three separate reservoirs — this reservoir combines the three into one convenient package.

Rear Brake Chamber	Front Brake Chamber	Clutch Chamber
6.3 oz (186 ml)	9.8 oz (289 ml)	4.0 oz (118 ml)

Description	Part Numbers
Reservoir - Push-on type	72-576
Reservoir - AN-4 Fitting type	72-577

Service Parts	Part Numbers
Replacement cap	72-576-6
Cap baffle, funnel-type	72-576-4
Lid gasket	72-576-3
Fitting, AN-4	72-577-2

Hose Kit available for use with Tilton reservoirs.
96" length with 6 clamps.
(P/N 74-221)



- WARNING -
PTFE, EPDM or SBR hose must be used.

Reservoir

3-Chamber Billet Aluminum



Features

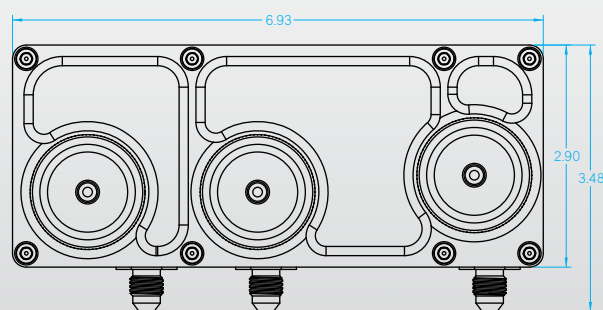
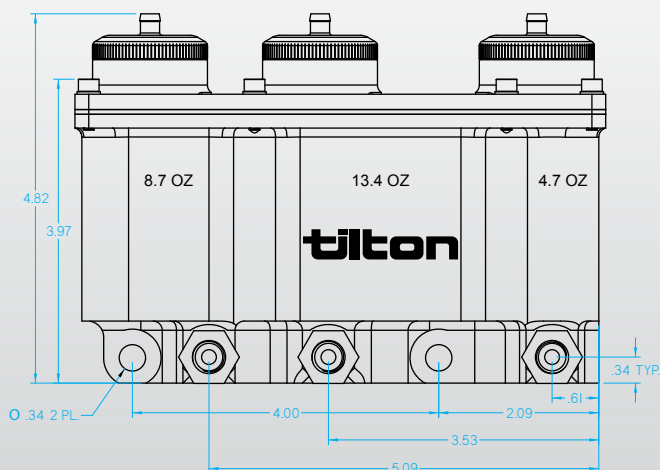
- Tilton's 3-Chamber billet aluminum reservoir combines two brake fluid reservoirs and a clutch fluid reservoir into one convenient package.
- Three separate internal reservoirs allow for complete evacuation of one without affecting the remaining two.
- Reservoir caps have a double-baffle system and an o-ring to ensure proper sealing.
- A hose connection is provided if an external baffle system is desired.
- The removable lid provides easy access to the reservoirs for cleaning and maintenance.
- O-ring sealed AN-4 fittings are included.

Created using the latest precision machining technologies, the 3-chamber billet reservoir incorporates many premium features not available on any other reservoir on the market. Carved from a single block of aluminum, this reservoir can withstand the rigors of a demanding race while being light, strong and performing beyond expectation.

There is no longer a reason to use three separate plastic reservoirs — this reservoir combines the three into one convenient, durable, premium package.

Rear Brake Chamber	Front Brake Chamber	Clutch Chamber
8.7 oz (257 ml)	13.4 oz (396 ml)	4.7 oz (139 ml)

Description	Part Number
Billet Aluminum reservoir	72-570
Service Parts	
Replacement cap assembly	72-574
O-ring for reservoir cap	72-570-6
Lid gasket	72-570-4
Fitting, AN-4 male/AN-4 male	73-817
O-ring for fitting	73-818



Brake Accessories

Bias Adjusters
90° Coupler



Description	Part Number
Standard Bias Adjuster	72-508

Standard Bias Adjuster

Finger-grooved plastic adjustment knob.

- Vibration-resistant, spring-loaded dual-detent knob retention
- High quality 6-foot steel cable
- “Wind-up” resistant cable sleeve
- Includes couplers to fit 3/8"-24 and 7/16"-20 balance bars



Description	Part Number
Premium Billet Bias Adjuster	72-408

Premium Bias Adjuster

Lightweight billet aluminum adjustment knob with rubber grip.

- Cross-action, spring loaded, dual detent system provides smooth and precise action.
- High quality 6-foot steel cable
- “Wind-up” resistant cable sleeve
- Optimized for function, durability and weight savings
- Adjuster can be easily taken apart for inspection and cleaning.
- Includes couplers to fit 3/8"-24 and 7/16"-20 balance bars

90° Coupler for Bias Adjuster

Designed to connect remote brake bias adjusters to balance bars at a 90 degree angle. This allows the adjuster’s cable to be routed so that it does not interfere with the clutch or throttle pedal.

Features

- High-quality steel bevel gears
- Compact aluminum case
- Durable black-anodized finish



Description	Part Number
90° Coupler (3/8"-24 balance bars)	72-560
90° Coupler (7/16"-20 balance bars)	72-561

Accessories

Proportioning Valves Flow Control Valve

Lever-Type Brake Proportioning Valves

Visual reference for seven distinct positions.

- Seven notched pre-determined pressure positions
- Wide clearly labeled handle
- Precision machined billet aluminum body
- Metric or Standard inlet port

Description	Part Numbers
Lever-type, AN-3 ports <i>(fittings included)</i>	90-1000
Lever-type, 10mm x 1.0 ports <i>(fittings not included)</i>	90-1003
Rebuild kit <i>(all types)</i>	90-1100

Screw-Type Brake Proportioning Valves

Fine adjustments for brake pressure reduction.

- Knurled adjustment knob for sure grip
- Fine adjustment set at any point for max control
- Precision machined billet aluminum body
- Metric or Standard inlet port

Description	Part Numbers
Screw-type, AN-3 ports <i>(fittings included)</i>	90-2000
Screw-type, 10mm x 1.0 ports <i>(fittings not included)</i>	90-2003
Rebuild kit <i>(all types)</i>	90-1100



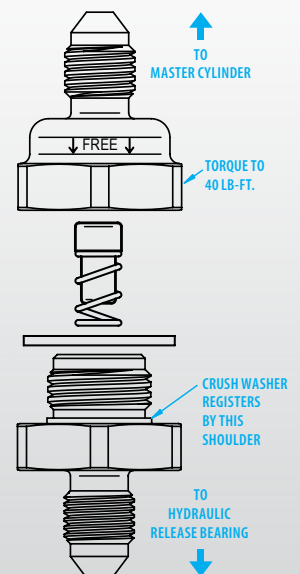
Flow Control Valve

Reduce shock loads while maintaining quick shifts and pedal feel.

Tilton's flow control valve is designed to reduce shock loads to the driveline by allowing the clutch to slip slightly during engagement. Shock load is a result of an abrupt clutch engagement when the crankshaft and input shaft speeds are not precisely matched. The flow control valve is designed to reduce the chance of losing traction when downshifting and/or the chance of damaging driveline components. Fluid flow is not restricted during clutch disengagement. Therefore, shift times are still quick and pedal feel is not altered. The valve will have an effect on quick clutch actuations only. It will not alter fine clutch modulation.

Includes three orifice sizes (.021", .028", .040") that enable clutch engagement to be tuned. The valves features AN-3 fittings for use with most Tilton master cylinders and -3 hydraulic lines.

Description	Part Number
Flow Control Valve	90-5000



Accessories

Balance Bars



600-Series Balance Bars

Designed for use with fixed-mounted dual master cylinder systems. Allows front-to-rear brake bias adjustments.

- High-strength steel bars
- Low-friction spherical bearings
- Forged aluminum clevises
- Steel outer tube

Diameter	Length	Center-to-Center	Part Numbers
3/8"-24	4.75"	2.50"	72-250
7/16"-20	5.20"	2.50"	72-260

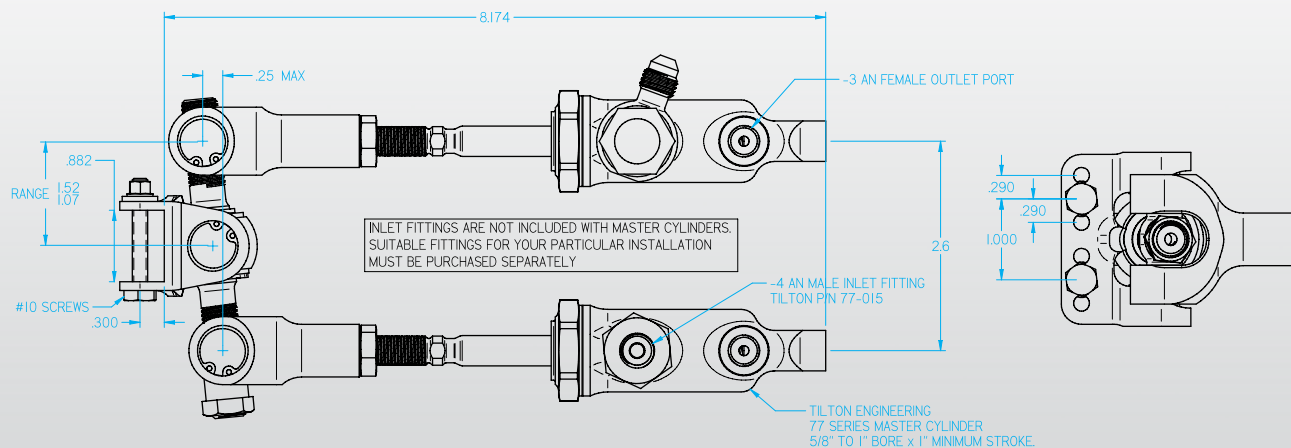
900-Series Balance Bars

As used in Tilton 900-Series pedal assemblies, these balance bars can be adapted to customer pedal applications. Designed for use with 77-Series master cylinders, this balance bar system is engineered to maximize dual master cylinder braking systems by eliminating friction typically found in traditional balance bar systems.

- Machined billet aluminum black anodized clevises
- For use with Tilton advanced 900-Series pedal assemblies
- Needle bearings ensure smooth operation
- 4-way bearing provides maximum movement range



Diameter	Length	Center-to-Center	Part Number
7/16"-20	3.95"	2.60"	72-280



Super Starters®

The Original... and still the best. For over 30 years the Tilton Super Starter has provided dependable starting for the world's finest engines. Introduced in 1981, the Super Starter is the original high performance gear reduction mini starter. It has become the benchmark for starters used in high performance and racing applications. While other "high performance" starter companies have come and gone, the Super Starter has earned its reputation for providing dependable starting under the most extreme conditions.

Today, the Super Starter is used in many applications and almost every form of racing worldwide. They can be found virtually anywhere, from your neighbor's work truck, to a prototype race car competing in the 24 Hours of Le Mans. Often imitated, but never duplicated, the Super Starter is the ultimate in starter technology. Super Starters are available worldwide from premiere racing and high-performance distributors.

Which Super Starter is right for me?

Tilton Super Starters come in two styles, and choosing the right one depends on the engine you are starting. Tilton's new 40000-Series Severe Duty Super Starter has been engineered to be the best Super Starter to date. An evolution of the venerable 20000-Series Super Starters, the 40000-Series benefit from 30+ years of knowledge gained from designing/building/servicing starters for some of the most punishing racing applications. Each component of the starter has been closely scrutinized by Tilton's engineers and thoroughly tested on the dyno and at the race track. 40000-Series Super Starters are designed for individuals that desire the most robust and high-performing starter available. Suitable for use on engines above 400 C.I.D. and/or greater than 10.5:1 compression ratio.

XLT Super Starters are designed for individuals that desire the most compact and lightest-weight starter available. Suitable for use on engines up to 400 C.I.D. and/or 10.5:1 compression ratio with a standard diameter flywheel.

No matter which starter is right for your application, when you choose a Tilton Super Starter, you are choosing the best.

Starting the worlds finest engines, since 1981.



What makes a starter a Tilton Super Starter?

Quality

Every Tilton Super Starter is made with top quality, 100% new components, assembled by highly trained technicians and individually dyno tested to assure quality. Over 30 years of listening to feedback from motorsports customers has gone into the constant development of these starters, making them the choice for the most demanding applications.

Selection

Super Starters are available as an upgrade to many Original Equipment (OE) starters and for many specialty/custom applications. They are available in two different motor platforms, and many are available with standard or reverse rotation.

**More than 400 C.I.D.
Greater than 11 : 1 compression**

40000-Series

Tilton 40000-Series Starters are designed for use on engines larger than 400 C.I.D and/or over 11:1 compression ratio with standard or small diameter flywheel.



**Less than 400 C.I.D.
Less than 10.5 : 1**

XLT-Series

XLT-Series Starters are designed for use on engines less than 400 C.I.D and less than 10.5:1 compression ratio with standard or small diameter flywheel.



Heavy-Duty High Performance

40000-Series



Motor Power:

3.0 HP (2.2 kW)

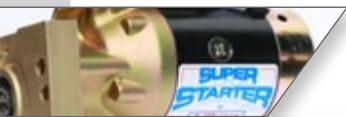
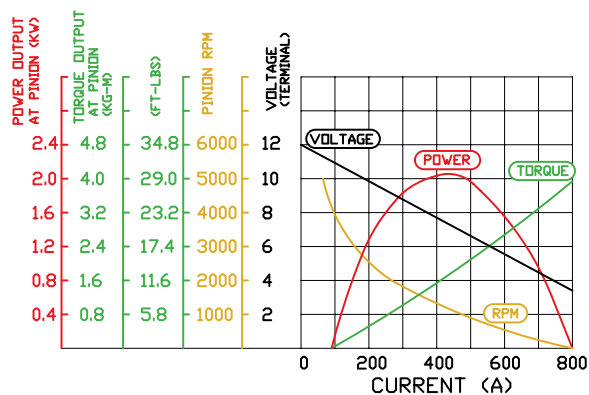
Weight:

12.0 lbs

Rec. Engine Size:

More than 400 C.I.D.

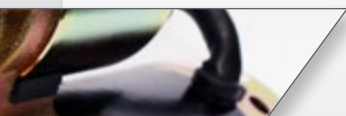
Rec. Compression Ratio:

Over 11 : 1

Powerful 3.0 HP motor and gear reduction provides high torque to start large, high compression engines.



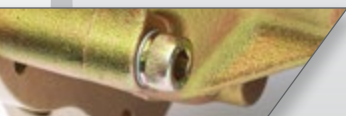
Precision machined components are held to critical tolerances, ensuring high performance and a perfect fit.



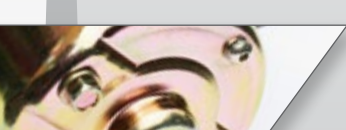
Internal vibration damping and electrical insulation provide longevity and maximum performance.



High-strength (grade 10.9) socket head fasteners ensure rigid assembly and easy access for hex keys.

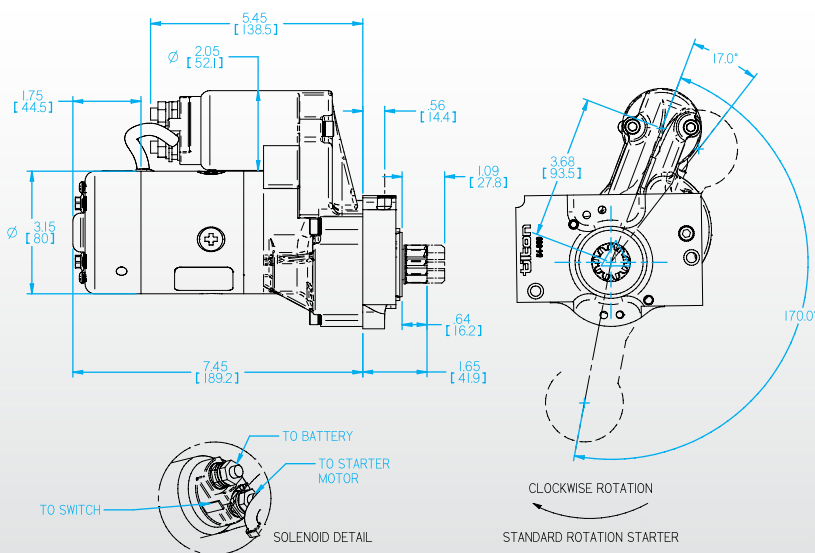


Serrated belleville lock washers are used to ensure fasteners stay in place through severe vibrations and heat cycles.



Thread locking compound is used on all fasteners and are secured to precise torque specifications.

Application		Part Numbers
Chevy V8 / 90 degree V6	153 / 168-tooth ring gear	54-40001
	104-tooth ring gear	54-40005
Ford 289/302/351W/390/427/428 engines, 1967-up		54-40013
Ford 351M/400/429/460 engines		54-40014
QM rear-mount starter bellhousing, 110-tooth ring gear		54-41052
Tilton rear-mount starter bellhousing, 105-tooth ring gear		54-41052
Tilton 52-Series UTGC rear-mount bellhousing, 102T ring gear		54-41062
Tilton 52-Series 7.25" bellhousing, 110-tooth ring gear	4 o'clock solenoid position	54-41547
	6 o'clock solenoid position	54-41047
	11 o'clock solenoid position	54-41647
VW-type transaxles transaxles (Albins, Fortin, Mendeola, etc)		54-41053



NOTES:

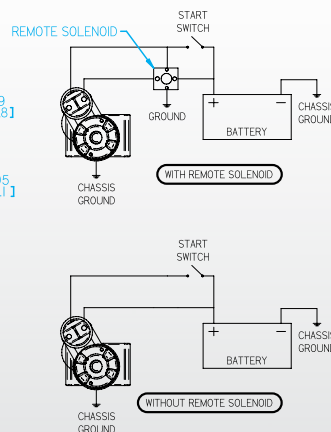
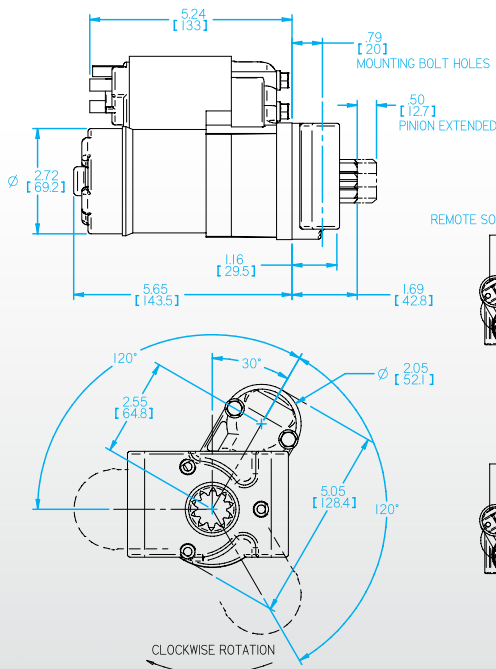
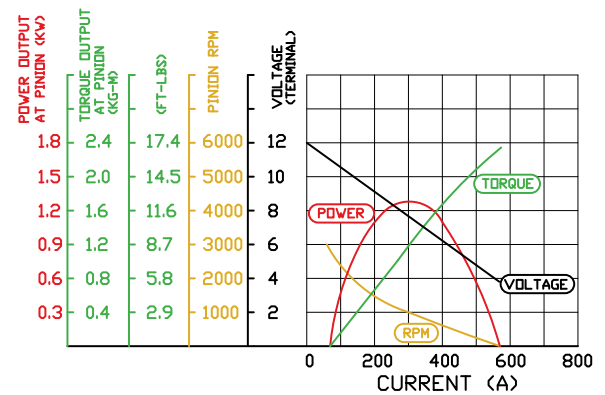
1. STARTER CAN BE INDEXED INTO THREE POSITIONS AS SHOWN
2. SET BACKLASH BETWEEN PINION AND RING GEAR TO .020" +/- .010"
3. CHECK FOR .100" +/- .040" PINION OFFSET FROM RING GEAR
4. 9 TOOTH, 12 PITCH PINION, .805" (20.45mm) PITCH DIAMETER
5. STARTER ASSY WEIGHS 11.2 LBS (5.1kg)
6. 3.0 HP, 2.2 kw MOTOR
7. CHEVY V8, SML & BIG BLK 153/168T FW
8. DIMENSIONS ARE NOMINAL

Lightweight High Performance

XLT-Series

Motor Power: **1.6 HP (1.2 kW)**Weight: **7.0 lbs**Rec. Engine Size: **Less than 400 C.I.D.**Max Rec. Compression: **10.5 : 1**

Application	Part Numbers
Chevy V8 / 90° V6 engines, 153-tooth ring gear	54-50001
Formula Ford, 110-tooth ring gear, Hewland MK5/MK8 transaxes	54-50030
Tilton 52-Series 7.25" bellhousing, 110-tooth ring gear	54-61048
Tilton 53-Series OE Monohousings, 153-tooth ring gear	Dodge R5 54-50694 Ford 54-50083
Universal drive assembly, no mounting nose	9-tooth, 10-pitch 54-5110 10-tooth, 12-pitch 54-5100



NOTES:

1. STARTER CAN BE INDEXED INTO THREE POSITIONS AS SHOWN
2. SET BACKLASH BETWEEN PINION AND RING GEAR TO .020" \pm .010"
3. CHECK FOR .100" \pm .040" PINION OFFSET FROM RING GEAR
4. 10 TOOTH, 12 PITCH PINION, .890" (22.58mm) PITCH DIAMETER
5. STARTER WEIGHT WITH NOSE: 7 LBS
6. POWER OUTPUT: 1.9 hp (1.4 kW)
7. CHEVY V8, SML & BIG BLK 153/168T FW
8. DIMENSIONS ARE NOMINAL

Lightweight yet powerful, the 1.6 HP motor provides fast torque to start high performance engines.

Precision machined components are held to critical tolerances, ensuring high performance and a perfect fit.

Internal vibration damping and electrical insulation provide longevity and maximum performance.

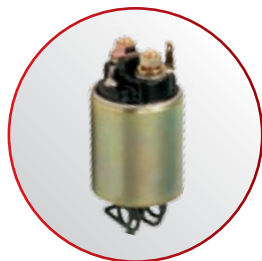
High-strength (grade 10.9) socket head fasteners ensure rigid assembly and easy access for hex keys.

Thread locking compound is used on all fasteners and are secured to precise torque specifications.

Starter Service Parts



GENUINE SERVICE PARTS

**Solenoid**

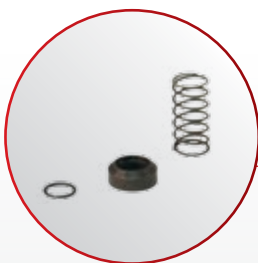
For all 40000-Series Super Starters	54SD-022
For all XLT Super Starters	54-5500

**Drive Assembly** - Includes pinion kit, sprag/clutch & bearings

For 54-40001, 54-40013 and 54-40014 Super Starters	54-421
For 54-41052 and 54-41053 Super Starter	54-021R
For 54-40005 Super Starter	54-020
For 54-41062 Super Starter	54SD-021R-13
For all XLT Super Starters (except 54-50030)	54-5400
For 54-50030 XLT Super Starter	54-5410

**Pinion Kit** - Includes pinion, return spring, cap & clip

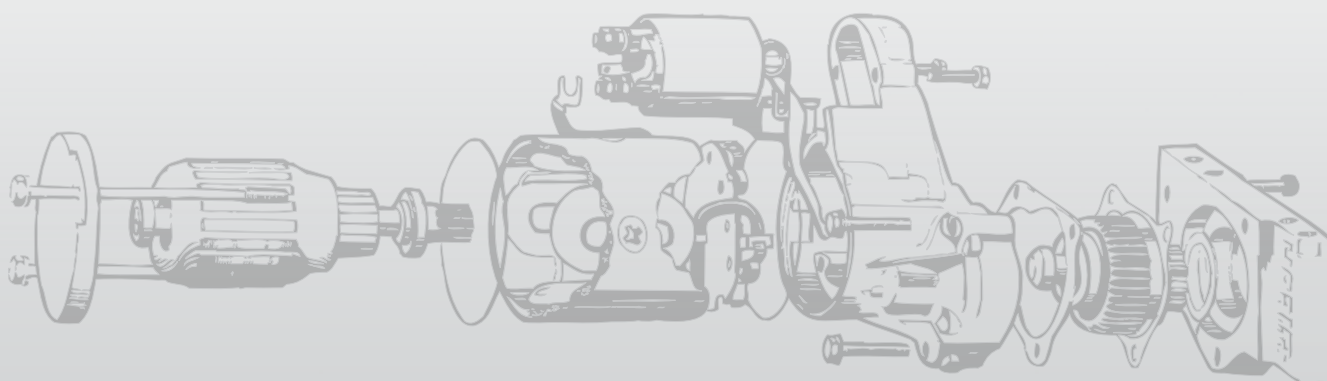
For 54-40001, 54-40013 and 54-40014 Super Starters	54-442
For 54-41052 and 54-41053 Super Starters	54-042R
For 54-40005 Super Starter	54-043
For 54-41062 Super Starter	54SD-042R-13

**Spring Kit** - Includes return spring, cap & clip

Standard rotation Super Starter	54-906
Reverse rotation Super Starter	54-906R

**Shim Kits** - Adjusts pinion-to-ring gear clearance

.062" thick, includes round and housing-shaped shims	54-952
Same as 54-952 with strip shims and Chevy mounting bolts	54-950



Where to Buy?

Tilton products are sold through a worldwide network of dealers. For information on where to buy Tilton products, or for a list of Tilton dealers, please contact us: **web:** www.tiltonracing.com **email:** technical@tiltonracing.com **phone:** 805.688.2353. We can direct you to a dealer that is near you and/or stocks the product you are looking for.

Note: Tilton will sell service parts or replacements parts not typically stocked by Tilton dealers directly to customers.

Technical Support

Tilton offers top-level technical support to customers, before and after the sale. Our technical support staff is very experienced, most with 15+ years at Tilton. For technical support, please contact us: **email:** technical@tiltonracing.com **phone:** 805.688.2353

Custom Parts

Tilton does make custom parts on a made-to-order basis. These parts are sold directly through Tilton. For further information on custom part orders, please contact us: **email:** sales@tiltonracing.com **phone:** 805.688.2353

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Tilton offers rebuild services on most of their products. We require that a Return Merchandise Authorization (RMA) number be obtained prior to sending products to Tilton for service. To obtain an RMA number, please contact us: **email:** repairs@tiltonracing.com **phone:** 805.688.2353

Limited Warranty

There is no warranty stated or implied, due the unusual stresses placed on racing/performance parts and because we have no control over how they are used. This warranty is in lieu of all other warranties expressed or implied, including the warranty of merchantability and fitness for use and all other obligations or liabilities on the Company's part. The obligation of TILTON ENGINEERING under this warranty shall be limited to the part or parts shown to be defective and the Company will not be responsible for any damage or loss caused by delays, failures or any consequential damage arising from any cause whatsoever, nor for labor, transportation or any other charges incurred in the replacement or repair of said defective part or parts.

This warranty to repair or replace is the only warranty expressed, implied or statutory on which the buyer purchases the Company's products. All other damages and warranties, statutory or otherwise, being expressly waived by the buyer.

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The Tilton logo is rendered in a bold, red, sans-serif font. The letter 't' is stylized with a horizontal bar that extends to the left and ends in a small square. The letters are closely spaced, and the overall design is clean and modern. The logo is centered horizontally on the page.

tilton

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