

# MANLEY

*Powers the Winners*

2020



**SPORT COMPACT**  
*High Performance Engine Components*

## Manley Performance

**Car #:** The Manley Performance family of dedicated employees moves into the year 2020, the fifty-fourth of the company's existence, with undiminished enthusiasm and justifiable pride.

**Class:** The goal at Manley Performance remains laser focused on designing and producing the highest quality internal engine components at extremely competitive prices coupled with excellent customer service.

**Dial :**

**R/T :**

**60' :**

**330 :** I am very proud of the significant role Manley Performance has enjoyed in the automotive and marine aftermarket. The future beckons brightly. The company and its committed family of stalwart employees renews its pledge to continue serving the industry with innovative ideas and winning products.

**1/8 :**

**MPH:**

**1000:**

**1/4 :** Once again, the Manley catalog appears in three separate iterations: one that targets the interests of our domestic engine customers, another geared for our sport compact enthusiasts and one for our loyal Harley-Davidson motorcycle contingent.

I want to thank all of our customers for their past business and wish everyone a safe and prosperous 2020!

TRIP MANLEY

ALS SUNOCO



# MANLEY®

## MANAGEMENT TEAM



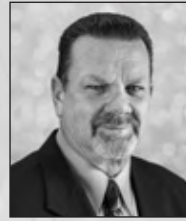
**Hank Manley**  
President



**Trip Manley**  
Vice President



**Michael Tokarchik**  
General Manager



**Pete Coleman**  
Manufacturing Manager



**Gil Morejon**  
Chief Financial Officer

## OFFICE & SALES STAFF



**Kari McNair**  
Purchasing Manager



**Randy Longstreet**  
Product Manager



**Frank TenBroeck**  
Project Manager



**Ryan Sammond**  
Project Manager



**Julie Morejon**  
Accounts Payable



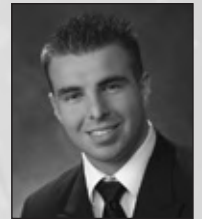
**Erin Simons**  
Accounts Receivable



**Michael Pomeroy**  
Sales Representative  
Drag Race Manager



**Pride Conner**  
Sales / Tech  
Representative



**Jesse Vazquez**  
Sales / Tech  
Representative



**Kiara Tuminelli**  
Sales / Tech  
Representative



**Johnny Cilia**  
Sales / Tech  
Representative



**Sarajane Sheare**  
Customer Service  
Representative



**Pat Jackson**  
Manager  
Manley West



**Kevin Lorentzen**  
Sales / Tech  
Manley West

## REGIONAL SALES MANAGERS



**Tom Razzano**  
East Coast



**Lee Hamilton**  
Mid-Central



**Bob Schmalz**  
North Central



**Gary Mecklenburg**  
West Coast

# STAINLESS VALVES

VALVES

## Honda / Acura Race Flo / Race Master Valves



Part No.	Type	Head Diameter	Stem Diameter	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head
<b>ACURA INTEGRA GSR 1.7L - DOHC V-TEC 16 VALVE ( B17A1 ) - 1992 - 1993</b>									
<b>ACURA INTEGRA GSR 1.8L - DOHC V-TEC 16 VALVE ( B18C1-C3 ) - 1994 - 2000</b>									
<b>HONDA DEL SOL 1.6L - DOHC V-TEC 16 VALVE ( B16A1 ) - 1994 - 1997</b>									
<b>HONDA CIVIC SI 1.6L - DOHC V-TEC 16 VALVE ( B16A3 ) - 1999 - 2000</b>									
11373-8	Exh.	28.0mm	5.46mm / .2150"	102.70mm	2.5mm	25° x 11/32"	.065"	.080"	20° Dish
11691-8	Exh.	28.0mm	5.46mm / .2150"	102.70mm	2.5mm	25° x 11/32"	.065"	.080"	Flat Face
11375-8	Exh.	28.5mm	5.46mm / .2150"	102.70mm	2.5mm	25° x 11/32"	.065"	.080"	20° Dish
11693-8	Exh.	28.5mm	5.46mm / .2150"	102.70mm	2.5mm	25° x 11/32"	.065"	.080"	Flat Face
11377-8	Exh.	29.0mm	5.46mm / .2150"	102.70mm	2.5mm	25° x 11/32"	.065"	.080"	20° Dish
11372-8	Int.	33.0mm	5.48mm / .2157"	102.40mm	2.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11690-8	Int.	33.0mm	5.48mm / .2157"	102.40mm	2.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	Flat Face
11374-8	Int.	33.5mm	5.48mm / .2157"	102.40mm	2.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11692-8	Int.	33.5mm	5.48mm / .2157"	102.40mm	2.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	Flat Face
11376-8	Int.	34.0mm	5.48mm / .2157"	102.40mm	2.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>ACURA RSX Type S 2.0L - DOHC i-VTEC 16 VALVE ( K20A2 ) - 2001 - Up</b>									
11127-8	Exh.	30.0mm	5.46mm / .2150"	109.04mm	2.08mm	25° x 11/32"	.065"	.080"	20° Dish
11129-8	Exh.	30.5mm	5.46mm / .2150"	109.04mm	2.08mm	25° x 11/32"	.065"	.080"	20° Dish
11131-8	Exh.	31.0mm	5.46mm / .2150"	109.04mm	2.08mm	25° x 11/32"	.065"	.080"	20° Dish
11128-8	Int.	35.0mm	5.48mm / .2157"	109.22mm	2.08mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11130-8	Int.	35.5mm	5.48mm / .2157"	109.22mm	2.08mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11132-8	Int.	36.0mm	5.48mm / .2157"	109.22mm	2.08mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>HONDA ACCORD 2.2L - SOHC V-TEC 16 VALVE ( F22B1 ) - 1994 - 1997</b>									
11371-8	Exh.	29mm	5.46mm / .2150"	114.25mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11379-8	Exh.	30mm	5.46mm / .2150"	114.25mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11370-8	Int.	34mm	5.48mm / .2157"	116.00mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11378-8	Int.	35mm	5.48mm / .2157"	116.00mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>HONDA CIVIC 1.6L - SOHC 16 VALVE ( D16Z6-Y5-Y7-Y8 ) - 1992 - 2000</b>									
11367-8	Exh.	26mm	5.46mm / .2150"	115.95mm	1.9mm	25° x 11/32"	.065"	.080"	20° Dish
11369-8	Exh.	27mm	5.46mm / .2150"	115.95mm	1.9mm	25° x 11/32"	.065"	.080"	20° Dish
11366-8	Int.	30mm	5.48mm / .2157"	118.60mm	1.9mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11368-8	Int.	31mm	5.48mm / .2157"	118.60mm	1.9mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>HONDA CIVIC CRX SI 1.6L - SOHC 16 VALVE ( D16A6 ) - 1988 - 1991</b>									
11383-8	Exh.	25mm	5.46mm / .2150"	118.75mm	4.35mm	25° x 11/32"	.065"	.080"	17° Dish
11385-8	Exh.	26mm	5.46mm / .2150"	118.75mm	4.35mm	25° x 11/32"	.065"	.080"	17° Dish
11384-8	Int.	29mm	5.48mm / .2157"	115.00mm	4.1mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11386-8	Int.	30mm	5.48mm / .2157"	115.00mm	4.1mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>HONDA PRELUDE 2.2L - DOHC V-TEC 16 VALVE ( H22A1-A4 ) - 1993 - 2000</b>									
11393-8	Exh.	30.0mm	5.46mm / .2150"	106.90mm	1.9mm	25° x 11/32"	.065"	.080"	20° Dish
11339-8	Exh.	30.5mm	5.46mm / .2150"	106.90mm	1.9mm	25° x 11/32"	.065"	.080"	20° Dish
11395-8	Exh.	31.0mm	5.46mm / .2150"	106.90mm	1.9mm	25° x 11/32"	.065"	.080"	20° Dish
11394-8	Int.	35.0mm	5.48mm / .2157"	106.65mm	1.9mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11338-8	Int.	35.5mm	5.48mm / .2157"	106.65mm	1.9mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11396-8	Int.	36.0mm	5.48mm / .2157"	106.65mm	1.9mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish

We recommend that customers check their valve guide size in order to achieve the proper valve stem to guide clearance

## Ford 2.3L EcoBoost Race Flo / Extreme Duty Valves



Part No.	Type	Head Diameter	Stem Diameter	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head
<b>EXTREME DUTY VALVES</b>									
11197-8	Exh.	30.0mm	5.46mm / .2150"	104.75mm	3.75mm	25° x 11/32"	.050"	.100"	Flat Face
11199-8	Exh.	30.5mm	5.46mm / .2150"	104.75mm	3.75mm	25° x 11/32"	.050"	.100"	Flat Face
<b>RACE MASTER VALVES</b>									
11196-8	Int.	32.5mm	5.48mm / .2157"	103.55mm	4.00mm	Pro Flo: 22° x 5/16"	.050"	.100"	17° Dish
11198-8	Int.	33.0mm	5.48mm / .2157"	103.55mm	4.00mm	Pro Flo: 22° x 5/16"	.050"	.100"	17° Dish

## Mazda Race Flo / Race Master Valves



Part No.	Type	Head Diameter	Stem Diameter	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head
<b>MAZDA MIATA 1.8L - DOHC 16 VALVE ( BP056 ) - 1990 - 1999</b>									
11101-8	Exh.	28mm	6mm / .2362"	101.52mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11103-8	Exh.	29mm	6mm / .2362"	101.52mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11102-8	Int.	33mm	6mm / .2362"	101.35mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11104-8	Int.	34mm	6mm / .2362"	101.35mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish

All Manley Performance aftermarket intake valves and exhaust valves for the Mazda engines are manufactured with a 6mm stem diameter. We recommend that customers check their valve guide size in order to achieve the proper valve stem to guide clearance. Guides may need to be honed when replacing valves. Factory sizes may vary depending on the specific motor.

## Mitsubishi Race Flo Valves



Part No.	Type	Head Diameter	Stem Diameter	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head
<b>MITSUBISHI ECLIPSE GS, GST 2.0L - DOHC 16 VALVE ( 4G63-4G63T ) 1990 - 2000</b>									
11133-8	Exh.	30.5mm	6.54mm / .2575"	109.7mm	3.8mm	Pro Flo: 22° x 7/16"	.065"	.080"	17° Dish
11161-8	Exh.	31.0mm	6.54mm / .2575"	109.7mm	3.8mm	Pro Flo: 22° x 7/16"	.065"	.080"	17° Dish
11135-8	Exh.	31.5mm	6.54mm / .2575"	109.7mm	3.8mm	Pro Flo: 22° x 7/16"	.065"	.080"	17° Dish
11134-8	Int.	34mm	6.57mm / .2587"	109.7mm	3.8mm	Pro Flo: 20° x 11/32"	.050"	.075"	15° Dish
11160-8	Int.	34.5mm	6.57mm / .2587"	109.7mm	3.8mm	Pro Flo: 20° x 11/32"	.050"	.075"	15° Dish
11136-8	Int.	35mm	6.57mm / .2587"	109.7mm	3.8mm	Pro Flo: 20° x 11/32"	.050"	.075"	15° Dish

## Nissan GT-R 3.8L-DOHC 24 Valve VR38DETT Race Master / Extreme Duty Valves



Part No.	Type	Head Diameter	Stem Diameter	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head
<b>EXTREME DUTY VALVES</b>									
11193-12	Exh.	32.15mm	5.96mm / .2345"	92mm	2.16mm	25° x 11/32"	.060"	.100"	Dimple
11195-12	Exh.	33.15mm	5.96mm / .2345"	92mm	2.16mm	25° x 11/32"	.060"	.100"	Dimple
<b>RACE MASTER VALVES</b>									
11190-12	Int.	37.15mm	5.97mm / .2350"	95mm	4.95mm	25° x 11/32"	.050"	.100"	Flat Face
11192-12	Int.	38.15mm	5.97mm / .2350"	95mm	4.95mm	25° x 11/32"	.050"	.100"	Flat Face

Note: Tip area is reduced in diameter on both intake and exhaust to 5.46mm for compatibility with factory locks and retainers.

# STAINLESS VALVES

VALVES

## Nissan

### Race Flo / Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ Improved flow with "Pro Flo" Intakes
- ▶ NK-842 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined



We can also custom build 6.96mm/.2740" stem Extreme Duty exhaust valves from our 11281 GEN II blank stainless valve on page 8

Part No.	Type	Head Diameter	Stem Diameter	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head
<b>NISSAN 300 ZX 3.0L - DOHC 24 VALVE ( VG30D - TURBO VG30DTT ) - 1990 - 1996</b>									
11105-12	Exh.	29.5mm	6mm / .2362"	103.65mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11107-12	Exh.	30.5mm	6mm / .2362"	103.65mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11106-12	Int.	34.0mm	6mm / .2362"	103.13mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11108-12	Int.	35.0mm	6mm / .2362"	103.13mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>NISSAN 3.5L V6 - DOHC 24 VALVE ( VQ35DE, VQ35DET )</b>									
11149-12	Exh.	31.5mm	6mm / .2362"	94mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11151-12	Exh.	32.0mm	6mm / .2362"	94mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11153-12	Exh.	32.5mm	6mm / .2362"	94mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11148-12	Int.	37.0mm	6mm / .2362"	96.5mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11150-12	Int.	37.5mm	6mm / .2362"	96.5mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11152-12	Int.	38.0mm	6mm / .2362"	96.5mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>NISSAN PATROL St-S, St-L, Ti 4.8L - DOHC 24 VALVE ( VTC )</b>									
11141-12	Exh.	33.5mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	Flat Face
11143-12	Exh.	34.7mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	Flat Face
11177-12	Exh.	35.0mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	Flat Face
11179-12	Exh.	35.0mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	20° Dish
11181-12	Exh.	35.5mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	Flat Face
11183-12	Exh.	35.5mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	20° Dish
11142-12	Int.	38.5mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	Flat Face
11144-12	Int.	39.7mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	Flat Face
11174-12	Int.	40.0mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	Flat Face
11176-12	Int.	40.0mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	7° Dish
11178-12	Int.	40.5mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	Flat Face
11180-12	Int.	40.5mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	7° Dish
<b>NISSAN SENTRA SE-R 2.0L - DOHC 16 VALVE ( SR20DE ) - 1991 - 1998</b>									
11109-8	Exh.	30.15mm	6mm / .2362"	102.4mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11111-8	Exh.	31.15mm	6mm / .2362"	102.4mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
<b>NISSAN SENTRA SE-R 2.0L - DOHC 16 VALVE ( SR20DET ) - 1991 - 1998</b>									
11145-8*	Exh.	30.15mm	6.96mm / .2740"	102.4mm	3.5mm	15° x 1/2"	.065"	.080"	9° Dish
11147-8*	Exh.	31.15mm	6.96mm / .2740"	102.4mm	3.5mm	15° x 1/2"	.065"	.080"	9° Dish
* Both of these exhaust valves feature a 1mm stem diameter reduction in the keeper groove area to allow the use of the same valve springs, retainers and locks as the intake valves.									
<b>NISSAN SENTRA SE-R 2.0L - DOHC 16 VALVE ( SR20DE, SR20DET ) - 1991 - 1998</b>									
11110-8	Int.	34.15mm	6mm / .2362"	101.4mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11112-8	Int.	35.15mm	6mm / .2362"	101.4mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>NISSAN 2.6L INLINE 6-24 VALVE ( RB26DET/T )</b>									
11163-12*	Exh.	30.15mm	6.96mm / .2740"	101.52mm	3.5mm	15° x 1/2"	.065"	.080"	9° Dish
11165-12*	Exh.	31.15mm	6.96mm / .2740"	101.52mm	3.5mm	15° x 1/2"	.065"	.080"	9° Dish
* Both of these exhaust valves feature a 1mm stem diameter reduction in the keeper groove area to allow the use of the same valve springs, retainers and locks as the intake valves.									
11162-12	Int.	34.6mm	6mm / .2362"	102.33mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11164-12	Int.	35.6mm	6mm / .2362"	102.33mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>NISSAN 3.0L INLINE 6 - SOHC 12 VALVE ( RB30E/T )</b>									
11185-6	Exh.	35.1mm	8mm / .3136"	124.59mm	4.45mm	25° x 7/16"	.065"	.100"	19° Dish
11187-6	Exh.	36.1mm	8mm / .3136"	124.59mm	4.45mm	25° x 7/16"	.065"	.100"	19° Dish
11182-6	Int.	42.1mm	7mm / .2750"	125.68mm	4.45mm	10° x 3/8"	.050"	.080"	5° Dish
11184-6	Int.	43.1mm	7mm / .2750"	125.68mm	4.45mm	10° x 3/8"	.050"	.080"	5° Dish

Manley Performance recommends that customers check their valve guide size in order to achieve the proper valve stem to guide clearance. Guides may need to be honed when replacing valves.

## Subaru WRX EJ205 / STi EJ257

### Race Series Valves & Extreme Duty Valves

- ▶ XtremeAlloy and XH-426 Stainless Exhaust Material
- ▶ Swirl Polished and Fully Machined

- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head
<b>RACE MASTER VALVES</b>										
11155-8	Exh.	32mm	5.96mm/.2345"	Stock	104.75mm	3.5mm	25° x 11/32"	.060	.080	20° Dish
11171-8	Exh.	33mm	5.96mm/.2345"	Stock	104.75mm	3.5mm	25° x 11/32"	.060	.080	20° Dish
<b>EXTREME DUTY VALVES</b>										
11137-8	Exh.	32mm	5.96mm/.2345"	Stock	104.75mm	3.5mm	25° x 11/32"	.060	.100	20° Dish
11139-8	Exh.	33mm	5.96mm/.2345"	Stock	104.75mm	3.5mm	25° x 11/32"	.060	.100	20° Dish
<b>RACE FLO VALVES</b>										
11138-8	Int.	36mm	5.97mm/.2350"	Stock	104.6mm	3.5mm	Pro Flo: 19° x 5/16"	.050	.080	14° Dish
11140-8	Int.	37mm	5.97mm/.2350"	Stock	104.6mm	3.5mm	Pro Flo: 19° x 5/16"	.050	.080	14° Dish

## Toyota Race Flo / Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material

- ▶ Improved flow with "Pro Flo" Intake Underhead
- ▶ Chrome Stems, Swirl Polished and Fully Machined

We can also custom build 6.96mm/.2740" stem Extreme Duty exhaust valves from our 11281 GEN II blank stainless valve on page 8.

Part No.	Type	Head Diameter	Stem Diameter	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	
<b>TOYOTA 4AG ( ATLANTIC )</b>										
11113-8	Exh.	27.5mm	6mm / .2362"	99.75mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish	
11114-8	Int.	32.0mm	6mm / .2362"	99.6mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
<b>TOYOTA LAND CRUISER 4.5L - DOHC 24 VALVE ( 1FZ-FE ) - 1993 - 1998</b>										
11167-12	Exh.	32.0mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	Flat Face	
11169-12	Exh.	33.2mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	Flat Face	
11189-12	Exh.	33.5mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	Flat Face	
11191-12	Exh.	33.5mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	9° Dish	
11173-12	Exh.	34.0mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	Flat Face	
11175-12	Exh.	34.0mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	9° Dish	
11166-12	Int.	38.0mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	Flat Face	
11168-12	Int.	39.2mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	Flat Face	
11186-12	Int.	39.5mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	Flat Face	
11188-12	Int.	39.5mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	5° Dish	
11170-12	Int.	40.0mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	Flat Face	
11172-12	Int.	40.0mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	5° Dish	
<b>TOYOTA MR2 2.0L - DOHC 16 VALVE ( TURBO 3SGTE ) - 1990 - 1995</b>										
11115-8	Exh.	29.0mm	6mm / .2362"	99.5mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish	
11117-8	Exh.	30.0mm	6mm / .2362"	99.5mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish	
11116-8	Int.	33.5mm	6mm / .2362"	100.55mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
11118-8	Int.	34.5mm	6mm / .2362"	100.55mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
<b>TOYOTA SCION tC 2.4L - DOHC 16 VALVE ( 2AZFE )</b>										
11157-8	Exh.	29.5mm	5.46mm / .2150"	101.65mm	2.49mm	25° x 11/32"	.065"	.080"	Flat Face	
11159-8	Exh.	30.5mm	5.46mm / .2150"	101.65mm	2.49mm	25° x 11/32"	.065"	.080"	Flat Face	
11156-8	Int.	34.0mm	5.48mm / .2157"	101.96mm	2.49mm	Pro Flo: 22° x 5/16"	.050"	.075"	Flat Face	
11158-8	Int.	35.0mm	5.48mm / .2157"	101.96mm	2.49mm	Pro Flo: 22° x 5/16"	.050"	.075"	Flat Face	
<b>TOYOTA SUPRA 3.0L - DOHC 24 VALVE ( 7MGE - TURBO 7MGT ) - 1986 - 1992</b>										
11119-12	Exh.	27.5mm	6mm / .2362"	98.05mm	4.0mm	25° x 11/32"	.065"	.080"	20° Dish	
11121-12	Exh.	28.5mm	6mm / .2362"	98.05mm	4.0mm	25° x 11/32"	.065"	.080"	20° Dish	
11120-12	Int.	32.0mm	6mm / .2362"	98.05mm	4.0mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
11122-12	Int.	33.0mm	6mm / .2362"	98.05mm	4.0mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
<b>TOYOTA SUPRA 3.0L I/L 6 CYL - DOHC 24 VALVE ( 2JZGE - 2JZGTE ) - 1994 - 1998</b>										
11123-12	Exh.	29.0mm	6mm / .2362"	99.1mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish	
11125-12	Exh.	30.0mm	6mm / .2362"	99.1mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish	
11124-12	Int.	33.6mm	6mm / .2362"	98.55mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
11126-12	Int.	34.6mm	6mm / .2362"	98.55mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	

Manley Performance recommends that customers check their valve guide size in order to achieve the proper valve stem to guide clearance. Guides may need to be honed when replacing valves.

# STAINLESS VALVES

VALVES

## Gen II Valve Blanks

### Extreme Duty & Race Series

- ▶ Hard Tips and Hardened Grooves
- ▶ No Need for Inserted Tips or Wear Caps

The procedure for ordering a custom valve is as simple as 1-2-3 !

1. Select the blank appropriate for your finished piece based first on stem diameter.
2. Give us your final head diameter along with the seat and margin widths.
3. Specify the length of the valve you want, along with groove type and location.

\* Part numbers with asterisks can be reduced 1.500" or 38mm. All others .800" or 20.32mm.



All Gen II custom stainless valve part numbers are priced to include all machining to render a finished valve provided that no more than .250" of material needs to be removed from the head diameter. If more than .250" of material is to be removed from the head diameter, then an additional machining charge P/N 04007 must be added to the price of the valve.

Part No.	Type	Maximum Head Diameter	Stem Diameter	Maximum Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Material
<b>XTREMEALLOY GEN II CUSTOM EXHAUST VALVES</b>									
11281-8*	Exh.	38.0mm / 1.496	6.96mm / .2740	127.0mm / 5.000	15° x 1/2"	.080	.100	9° Dish	XtremeAlloy
11265-8*	Exh.	39.0mm / 1.535	5.96mm / .2345	121.9mm / 4.800	25° x 11/32"	.080	.100	20° Dish	XtremeAlloy
11283-8*	Exh.	33.0mm / 1.299	5.46mm / .2150	121.0mm / 4.764	25° x 11/32"	.065	.080	Flat Face	XtremeAlloy
<b>RACE SERIES GEN II CUSTOM VALVES</b>									
11247-8	Exh.	37.0mm / 1.457	6.96mm / .2740	121.9mm / 4.800	15° x 1/2"	.080	.100	9° Dish	XH-426
11246-8	Int.	48.0mm / 1.890	6.96mm / .2740	121.9mm / 4.800	10° x 3/8"	.050	.080	5° Dish	NK-842
11267-8	Exh.	41.9mm / 1.650	7.0mm / .2755	119.4mm / 4.700	30° x 1/2"	.060	.100	24° Dish	XH-426
11250-8*	Int.	48.0mm / 1.890	7.0mm / .2750	137.9mm / 5.430	10° x 3/8"	.065	.080	5° Dish	NK-842
11268-8	Int.	50.8mm / 2.000	7.0mm / .2755	116.8mm / 4.600	28° x 7/16"	.050	.100	22° Dish	NK-842
11213-8	Exh.	33.0mm / 1.299	6.0mm / .2362	113.5mm / 4.469	25° x 11/32"	.065	.080	20° Dish	XH-426
11212-8	Int.	39.0mm / 1.535	6.0mm / .2362	113.5mm / 4.469	Pro Flo: 22° x 5/16"	.065	.080	17° Dish	NK-842
11266-8*	Int.	35.0mm / 1.378	5.98mm / .2355	121.9mm / 4.800	12° x 5/16"	.065	.100	7° Dish	NK-842
11276-4	Int.	40.0mm / 1.575	5.97mm / .2350	113.0mm / 4.449	25° x 11/32"	.065	.100	Flat Face	NK-842
11209-8	Exh.	32.0mm / 1.260	5.46mm / .2150	121.0mm / 4.764	25° x 11/32"	.065	.080	Flat Face	XH-426
11208-8	Int.	37.0mm / 1.457	5.48mm / .2157	121.0mm / 4.764	Pro Flo: 22° x 5/16"	.065	.080	Flat Face	NK-842



# VALVE LOCKS & WEAR CAPS

## Valve Locks

- ▶ Manufactured from premium quality heat treated steel
- ▶ Machined to exacting tolerances



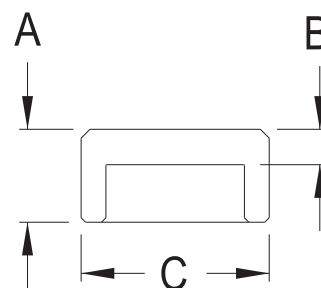
Part No.	Quantity	Description	Valve Stem	Groove Type	Angle	Wgt. / Pr.
13010-8	8 pr.	Honda / Acura	5.47mm / .2150"	OEM Radius	7°	1.5 gms
13012-8	8 pr.	Nissan	6.0mm / .2362"	OEM Radius	6°	1.4 gms
13014-8	8 pr.	Toyota	6.0mm / .2362"	OEM Radius	6°	1.4 gms
13016-8	8 pr.	Mitsubishi	6.56mm / .2581"	OEM Radius	6°	1.3 gms



CYL HEAD COMPONENTS

## Wear Caps

- ▶ Thru-hardened 4140 alloy steel
- ▶ Special heat treatment to HRc 50-54
- ▶ Non rotating caps afford less valve tip erosion



Part No.	Quantity	Description	Minimum Tip	Type	A	B	C	Weight
42263-8	8 pcs.	.2165" stem valves (5.5mm)	.095"	Standard	.090"	.040"	.300"	0.6 gms
42254-8	8 pcs.	.2360" stem valves (6mm)	.275"	Non Rotating	.235"	.060"	.385"	2.5 gms
42264-8	8 pcs.	.2360" stem valves (6mm)	.095"	Standard	.090"	.040"	.320"	0.6 gms
42100-8	8 pcs.	.2740" stem valves (7mm)	.250"	Standard	.225"	.085"	.425"	2.9 gms
42118-8	8 pcs.	.2740" stem valves (7mm)	.290"	Non Rotating	.270"	.080"	.385"	2.5 gms
42110-8	8 pcs.	.2754" stem valves (7mm)	.250"	Standard	.225"	.085"	.425"	2.9 gms



# VALVE SPRINGS

## Acura/Honda, Dodge & Mitsubishi Valve Springs

- ▶ Wound from super clean alloy
- ▶ Designed to handle aftermarket camshafts
- ▶ Revs up to 10,000 RPM with Manley titanium retainers

CYL HEAD COMPONENTS

Part No.	Quantity	Application	O.D. / I.D. Outer Inner	Pressures	Stock / Maximum Net Lift	Coil Bind	Rate ( lbs. / in. )	Titanium Retainer
22105-16	16 pcs.	Acura B Series V-Tec High Performance Race	1.180" / .870" .865" / .660"	82 @ 1.350" 206 @ .950" 248 @ .815"	.400" .535"	.765"	310	23100-16
22110-16	16 pcs.	Honda H22 V-Tec	1.160" / .870" .865" / .660"	88 @ 1.400" 200 @ .950" 232 @ .840"	.450" .560"	.790"	227	23100-16
22120-16	16 pcs.	Honda B Series Non V-Tec <small>Stock installed height on B Series Non V-Tec spring is: Intake - 1.320" / Exhaust - 1.425".</small>	1.105" / .820" .800" / .630"	54 @ 1.375" 143 @ .990" 195 @ .760"	.385" .615"	.710"	230	23120-16
22140-16	16 pcs.	Honda K20A/K20Z	1.160" / .870" .865" / .660"	80 @ 1.590" 249 @ 1.140" 283 @ 1.050"	.450" .540"	1.000"	375	23140-16
22145-16	16 pcs.	Honda K20A3/K24A	1.106" / .787"	79 @ 1.565" 182 @ 1.185" 226 @ 1.025"	.380" .545"	.975"	274	23145-16
22150-16	16 pcs.	Honda F20C/F22C	1.160" / .870" .865" / .660"	84 @ 1.580" 264 @ 1.100" 283 @ 1.050"	.480" .530"	1.000"	375	23150-16
22190-16	16 pcs.	Dodge SRT-4	1.100" / .775"	92 @ 1.500" 188 @ 1.175" 237 @ 1.000"	.325" .500"	.950"	294	23190-16
22115-16	16 pcs.	Mitsubishi 4G63-4G63T DOHC 16 Valve (1990-1999) DSM	1.160" / .870" .865" / .660"	104 @ 1.580" 237 @ 1.210" 269 @ 1.120"	.370" .460"	1.070"	359	23115-16
22125-16	16 pcs.	Mitsubishi 4G63-4G63T DOHC 16 Valve (1990-2006) DSM / EVO	1.100" / .775"	66 @ 1.580" 175 @ 1.210" 237 @ 1.000"	.370" .580"	.950"	294	23125-16
22195-16	16 pcs.	Mitsubishi EVO X 4B11T DOHC 16 Valve (2008-Up)	.990" / .710"	86 @ 1.400" 180 @ 1.030" 198 @ .970"	.370" .430"	.920"	253	23195-16



## Nissan, Subaru & Toyota Valve Springs

- ▶ Wound from super clean alloy
- ▶ Designed to handle aftermarket camshafts
- ▶ Revs up to 10,000 RPM with Manley titanium retainers

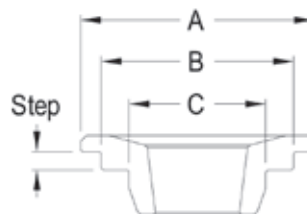
Part No.	Quantity	Application	O.D. / I.D. Outer Inner	Pressures	Stock / Maximum Net Lift	Coil Bind	Rate ( lbs. / in. )	Titanium Retainer
<b>22155-24</b>	24 pcs.	Nissan Patrol TB48	1.100" / .775"	75 @ 1.550" 191 @ 1.165" 237 @ 1.100"	.385" .550"	.950"	294	<b>23155-24</b>
<b>22160-16</b>	16 pcs.	Nissan KA24DE	1.180" / .870" .865" / .660"	73 @ 1.400" 191 @ 1.050" 228 @ .900"	.350" .500"	.850"	310	<b>23160-16</b>
<b>22165-16</b>	16 pcs.	Nissan SR20DE/SR20DET	1.160" / .835"	90 @ 1.550" 185 @ 1.170" 225 @ 1.010"	.380" .540"	.960"	248	<b>23165-16</b>
<b>22170-24</b>	24 pcs.	Nissan VQ35DET	.990" / .710"	80 @ 1.425" 175 @ 1.050" 195 @ .970"	.375" .455"	.920"	253	<b>23170-24</b>
<b>22175-24</b>	24 pcs.	Nissan RB26DET	1.100" / .775"	80 @ 1.535" 197 @ 1.140" 237 @ 1.000"	.395" .535"	.950"	294	<b>23175-24</b>
<b>22180-16</b>	16 pcs.	Subaru WRX/Sti	1.050" / .755"	60 @ 1.420" 151 @ 1.050" 187 @ .895"	.370" .525"	.845"	245	<b>23180-16</b>
<b>22185-16</b>	16 pcs.	Subaru WRX/Sti Single Conical Ovate Wire	Top: 1.016" / .640" Bottom: 1.126" / .750"	95 @ 1.420" 217 @ 1.050" 264 @ .910"	.370" .510"	.860"	330	<b>23185-16</b>
<b>22130-24</b>	24 pcs.	Toyota Supra 2JZGT/2JZGTE 6 cyl.	1.050" / .755"	82 @ 1.325" 165 @ .985" 187 @ .895"	.340" .430"	.845"	245	<b>23130-24</b>
<b>22135-24</b>	24 pcs.	Toyota Supra 2JZGT/2JZGTE 6 cyl. Single Conical	Top: .856" / .560" Bottom: 1.046" / .750"	100 @ 1.300" 215 @ .960" 245 @ .870"	.340" .430"	.825"	339	<b>23135-24</b>



# SPRING RETAINERS

## Acura/Honda, Dodge, Mitsubishi, Nissan, Subaru & Toyota

### Titanium Retainers



- ▶ Heat treated aerospace grade titanium
- ▶ CNC machined to exacting tolerances
- ▶ Lightweight and extremely durable
- ▶ A must for your high revving sport compact engine

Part No.	Application	Spring	Valve Stem Diameter	Valve Lock Degree	Dimensions				Wgt/ Grams
					A	B	C	Step	
23000-16	Acura B18C / B16A / H22	Stock Spring	5.5mm	7°	1.100"	.830"	.600"	.080"	6
23100-16	Acura B16A / B18C / B17A Honda H22 V-Tec	Manley 22105, 22110	5.5mm	7°	1.150"	.850"	.650"	.080"	7
23120-16	Honda B18A / B ( Non V-Tec )	Manley 22120	6.5mm	7°	1.100"	.805"	.610"	.080"	6
23140-16	Honda K20A/K20Z	Manley 22140	5.5mm	7°	1.050"	.850"	.610"	.080"	7
23145-16	Honda K20A3/K24A	Manley 22145	5.5mm	7°	1.050"	.775"	.610"	.045"	8
23150-16	Honda F20C/F22C	Manley 22150	5.5mm	7°	1.050"	.850"	.610"	.080"	7
23190-16	Dodge SRT-4	Manley 22190	6.0mm	7°	1.050"	.760"	-----	.100"	6
23115-16	Mitsubishi 4G63-4G63T DOHC 16 Valve (1990-1999)	Manley 22115	6.6mm	6°	1.050"	.850"	.610"	.040"	8
23125-16	Mitsubishi 4G63-4G63T DOHC 16 Valve (1990-2006)	Manley 22125	6.6mm	6°	1.050"	.760"	-----	.140"	9
23195-16	Mitsubishi EVO X 4B11T	Manley 22195	5.5mm	7.5°	.960"	.690"	-----	.100"	7
23155-24	Nissan Patrol TB48	Manley 22155	6.0mm	6°	1.050"	.760"	-----	.080"	7
23160-16	Nissan KA24DE	Manley 22160	7.0mm	7°	1.150"	.850"	.650"	.080"	9
23165-16	Nissan SR20DE/SR20DET	Manley 22165	6.0mm	6°	1.150"	.825"	-----	.080"	10
23170-24	Nissan VQ35DET	Manley 22170	5.5mm	6°	.960"	.690"	-----	.140"	8
23175-24	Nissan RB26DETT	Manley 22175	6.0mm	6°	1.050"	.760"	-----	.080"	8
23180-16	Subaru WRX/Sti	Manley 22180	6.0mm	6°	1.050"	.745"	.515"	.100"	6
23185-16	Subaru WRX/Sti	Manley 22185	6.0mm	6°	.875"	.627"	.465"	.095"	5
23130-24	Toyota Supra 2JZGT/2JZGTE 6 cyl.	Manley 22130	6.0mm	6°	1.050"	.745"	.515"	.100"	6
23135-24	Toyota Supra 2JZGT/2JZGTE 6 cyl.	Manley 22135	6.0mm	6°	.800"	.550"	-----	.100"	3



# SPRING & RETAINER KITS

## Acura/Honda, Dodge, Mitsubishi, Nissan, Subaru & Toyota

### Valve Spring & Retainer Kits

- ▶ Wound from super clean alloy
- ▶ Designed to handle aftermarket camshafts

Part No. Without Valve Locks	Part No. With Valve Locks	Application	Max Net Lift	Spring No.	Titanium Retainer No.	Valve Locks
<b>26105</b>	<b>26105K</b>	Acura B Series, V-Tec	.535"	22105-16	23100-16	13010-8
<b>26110</b>	<b>26110K</b>	Honda H22, V-Tec	.560"	22110-16	23100-16	13010-8
<b>26120</b>	-----	Honda B Series, Non V-Tec	.615"	22120-16	23120-16	-----
<b>26140</b>	<b>26140K</b>	Honda K20A/K20Z	.540"	22140-16	23140-16	13010-8
<b>26145</b>	<b>26145K</b>	Honda K20A3/K24A	.545"	22145-16	23145-16	13010-8
<b>26150</b>	<b>26150K</b>	Honda F20C/F22C	.530"	22150-16	23150-16	13010-8
<b>26190</b>	-----	Dodge SRT-4	.500"	22190-16	23190-16	-----
<b>26115*</b>	<b>26115K*</b>	Mitsubishi 4G63-4G63T DSM DOHC 16 Valve (1990-1999)	.460"	22115-16	23115-16	13016-8
<b>26125</b>	<b>26125K</b>	Mitsubishi 4G63-4G63T DSM / EVO DOHC 16 Valve (1990-2006)	.580"	22125-16	23125-16	13016-8
<b>26195</b>	-----	Mitsubishi EVO X 4B11T	.430"	22195-16	23195-16	-----
<b>26155</b>	-----	Nissan Patrol TB48	.550"	22155-24	23155-24	-----
<b>26160*</b>	-----	Nissan KA24DE	.500"	22160-16	23160-16	-----
<b>26165</b>	<b>26165K</b>	Nissan SR20DE/SR20DET	.540"	22165-16	23165-16	13012-8
<b>26170</b>	-----	Nissan VQ35DET	.455"	22170-24	23170-24	-----
<b>26175</b>	<b>26175K</b>	Nissan RB26DETT	.535"	22175-24	23175-24	13012-8
<b>26180</b>	-----	Subaru WRX/Sti	.525"	22180-16	23180-16	-----
<b>26185</b>	-----	Subaru WRX/Sti	.510"	22185-16	23185-16	-----
<b>26130</b>	<b>26130K</b>	Toyota Supra, 2JZGT/2JZGTE 6 cyl.	.430"	22130-24	23130-24	13014-8
<b>26135</b>	<b>26135K</b>	Toyota Supra, 2JZGT/2JZGTE 6 cyl.	.430"	22135-24	23135-24	13014-8

\* These kits also include spring locators



Note: New part numbers are **BOLD & ITALICIZED**

# PLATINUM SERIES PISTONS

## Acura / Honda

- **B18C** • **K24A w/ K20A Head**
- **K20A** • **B16A**
- **B20B w/ B16A Head**



- ▶ 2618 high strength material; lightweight design
- ▶ Offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin
- ▶ 9310 alloy .210" wall pin upgrades available (see page 33)

- ▶ Pressure balance groove
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .004" measured 1.100" from the bottom of the oil ring

Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume(cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
<b>Acura Integra GSR 94-01 - B18C1 DOHC V-Tec (.827"/21mm x 2.250" Pin)</b>										
600000-4	81	STD	5.433"	87.2	1.181"	-9.3	9.0	Dish	290	46810-4
600005-4	81.5	+.5mm	5.433"	87.2	1.181"	-9.3	9.0	Dish	294	46815-4
600100-4	81	STD	5.433"	87.2	1.181"	1.2	11.0	Dome	293	46810-4
600105-4	81.5	+.5mm	5.433"	87.2	1.181"	1.2	11.0	Dome	297	46815-4
600200-4	81	STD	5.433"	87.2	1.195"	6.7	12.5	Dome	295	46810-4
600205-4	81.5	+.5mm	5.433"	87.2	1.195"	6.7	12.5	Dome	299	46815-4
<b>Acura Integra Type R 97-00 - B18C5 DOHC V-Tec (.827"/21mm x 2.250" Pin)</b>										
601005-4	81.5	+.5mm	5.433"	87.2	1.195"	3.4	11.5	Dome	315	46815-4
601105-4	81.5	+.5mm	5.433"	87.2	1.195"	-9.8	9.0	Dish	294	46815-4
<b>Acura RSX 02-Up - K20A-A2-A3 DOHC V-Tec (.866"/22mm x 2.500" Pin)</b>										
610000-4	86	STD	5.472"	86.0	1.181"	-6.5	9.0	Dish	319	46860-4
610100-4	86	STD	5.472"	86.0	1.181"	8.4	11.5	Dome	324	46860-4
610200-4	86	STD	5.472"	86.0	1.181"	12.5	12.5	Dome	329	46860-4
<b>Honda Del Sol 93-97/Civic SI 99-00 - B16A1-A2-A3 DOHC V-Tec (.827"/21mm x 2.250" Pin)</b>										
603000-4	81	STD	5.290"	77.4	1.181"	8.0	11.0	Dome	310	46810-4
603005-4	81.5	+.5mm	5.290"	77.4	1.181"	8.0	11.0	Dome	316	46815-4
603100-4	81	STD	5.290"	77.4	1.181"	-2.2	9.8	Flat Top	291	46810-4
603105-4	81.5	+.5mm	5.290"	77.4	1.181"	-2.2	9.8	Flat Top	297	46815-4
<b>Honda CRV 97-00 - B20B4 w/ B16A1-A2-A3 Head (.827"/21mm x 2.250" Pin)</b>										
602000-4	84	STD	5.394"	89.0	1.181"	-11.9	9.0	Dish	299	46840-4
602005-4	84.5	+.5mm	5.394"	89.0	1.181"	-11.9	9.0	Dish	312	46845-4
602010-4	85	+1.0mm	5.394"	89.0	1.181"	-11.9	9.0	Dish	325	46850-4
602100-4	84	STD	5.394"	89.0	1.181"	4.8	12.5	Dome	318	46840-4
602105-4	84.5	+.5mm	5.394"	89.0	1.181"	4.8	12.5	Dome	331	46845-4
602110-4	85	+1.0mm	5.394"	89.0	1.181"	4.8	12.5	Dome	344	46850-4
<b>Honda CRV 02-Up - K24A w/ K20A-A2-A3 Head DOHC V-Tec (.866"/22mm x 2.500" Pin)</b>										
611000-4	87	STD	5.984"	99.0	1.181"	-17.9	9.0	Dish	334	46870-4
611100-4	87	STD	5.984"	99.0	1.181"	-1.0	11.5	Flat Top	339	46870-4
611200-4	87	STD	5.984"	99.0	1.181"	4.5	12.5	Dome	344	46870-4

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Audi / Lamborghini

- **5.0L FSI V10**
- **5.2L FSI V10**

- ▶ 2618 high strength material; lightweight design
- ▶ Offset wrist pin for quiet start-ups
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ .210" wall 9310 alloy pin included P/N 42532



- ▶ Pressure balance groove
- ▶ Recommended piston clearance .0035" measured .850" from the bottom of the oil ring

Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume(cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
Lamborghini Gallardo V10 5.0L FSI 2003-2008 (.787"/20mm x 2.250" Pin)										
<b>639000CE-10*</b>	82.5	STD	6.063"	92.8	1.087"	-3.5	10.0	Dish	TBA	<b>46826-10</b>

Audi R8/Lamborghini Gallardo V10 5.2L FSI 2009-Present (.787"/20mm x 2.250" Pin)										
<b>640000CE-10*</b>	84.5	STD	6.063"	92.8	1.087"	-6.5	10.0	Dish	323	<b>46846-10</b>

\*Designed for use in sleeved blocks with iron cylinder walls

## BMW

- **N54B30**

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .210" wall Premium Chrome Moly pin (Standard Series) included P/N 42451
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42551
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured .850" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Cyl Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
<b>646000C-6</b>	<b>646000CE-6</b>	84.00	STD	5.709"	89.6	1.252"	-16.5	32	10.2	Dish	TBA	<b>46840-6</b>
<b>646005C-6</b>	<b>646005CE-6</b>	84.50	+0.5mm	5.709"	89.6	1.252"	-16.5	32	10.2	Dish	TBA	<b>46845-6</b>

## BMW

- **N55/S55**

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .210" wall Premium Chrome Moly pin (Standard Series) included P/N 42451
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42551
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured .850" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Cyl Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
<b>647000C-6</b>	<b>647000CE-6</b>	84.00	STD	5.683"	89.6	1.276"	-10.5	37	10.2	Dish	TBA	<b>46840-6</b>
<b>647005C-6</b>	<b>647005CE-6</b>	84.50	+0.5mm	5.683"	89.6	1.276"	-10.5	37	10.2	Dish	TBA	<b>46845-6</b>

SEE PAGE 30 & 31 FOR CUSTOM PISTONS

Note: New part numbers are **BOLD & ITALICIZED**



# PLATINUM SERIES PISTONS

## Ford

### • 2.0L EcoBoost

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin (Standard Series) included P/N 42248
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42548
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .0030" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
Ford Focus ST 2012-Up (.886"/22.5mm x 2.250" Pin)											
636000C-4	636000CE-4	87.5	STD	6.136"	83	1.291"	-7.3	9.3	Dish	379	46875-4
636005C-4	636005CE-4	88	+.5mm	6.136"	83	1.291"	-7.3	9.3	Dish	387	46880-4

PISTONS, RINGS, & PINS

## Ford

### • 2.3L EcoBoost

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin (Standard Series) included P/N 42248
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42548
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance: .0030" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
Ford Focus RS 2016-Up, Mustang 2015-Up (.886"/22.5mm x 2.250" Pin)											
637000C-4	637000CE-4	87.5	STD	5.875"	94	1.291"	-8.2	9.5	Dish	382	46875-4
637001C-4	637001CE-4	87.6	+.1mm	5.875"	94	1.291"	-8.2	9.5	Dish	384	46876-4
637005C-4	637005CE-4	88	+.5mm	5.875"	94	1.291"	-8.2	9.5	Dish	390	46880-4

## Ford XR-6

### Turbo 4.0L BA Falcon

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ 2.500 x .150" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42507
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .0030" measured .850" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size	Over Size	Rod Length	Stroke	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
628000C-6	628000CE-6	3.633"	STD	6.058"	3.910"	1.215"	-16	66	8.5:1	Dish	382	46923-6
628004C-6	628004CE-6	3.637"	+.004"	6.058"	3.910"	1.215"	-16	66	8.5:1	Dish	385	46924-6
628014C-6	628014CE-6	3.647"	+.014"	6.058"	3.910"	1.215"	-16	66	8.5:1	Dish	389	46926-6
628100C-6	628100CE-6	3.633"	STD	6.058"	3.910"	1.215"	-10	66	9.0:1	Dish	384	46923-6
628104C-6	628104CE-6	3.637"	+.004"	6.058"	3.910"	1.215"	-10	66	9.0:1	Dish	388	46924-6
628114C-6	628114CE-6	3.647"	+.014"	6.058"	3.910"	1.215"	-10	66	9.0:1	Dish	393	46926-6

Note: New part numbers are **BOLD & ITALICIZED**

SEE PAGE 30 & 31 FOR CUSTOM PISTONS





# PLATINUM SERIES PISTONS

## Hyundai

### • THETA I4 Genesis

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin included P/N 42251
- ▶ 9310 alloy .210" wall pin upgrades available P/N 42551
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
<b>Hyundai Genesis Coupe 2.0L Turbo Theta I4</b>										
616000C-4	86	STD	5.753"	86	1.181"	-2.5	9.3	Dish	325	46860-4
616005C-4	86.5	+.5mm	5.753"	86	1.181"	-2.5	9.3	Dish	332	46865-4

### Common Features

Crown Thickness: .225"  
 Top Ring: 1.2mm, .250" down  
 Second Ring: 1.2mm  
 Oil Ring: 2.8mm

Pin Included: Standard Series: Premium Chrome Moly P/N 42251 (.150" wall, 96 grams, 2.250" long, 22mm dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42551 (.210" wall, 125 grams, 2.250" long, 22mm dia.)  
 Round Wire Locks: P/N 42270

## Mazda

### • SPEED 3 MZR

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin (Standard Series) included P/N 42248
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42548
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .0030" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
<b>Mazda Speed 3 MZR 2.3L DISI Turbo</b>												
630000C-4	630000CE-4	87.5	STD	5.927"	94	1.270"	-13.3	42	9.5	Dish	372	46875-4
630002C-4	630002CE-4	87.75	+.25mm	5.927"	94	1.270"	-13.3	42	9.5	Dish	375	46877-4
630005C-4	630005CE-4	88	+.5mm	5.927"	94	1.270"	-13.3	42	9.5	Dish	379	46880-4

### Common Features

Crown Thickness: .225"  
 Top Ring: 1.2mm, .250" down  
 Second Ring: 1.2mm  
 Oil Ring: 2.8mm

Pin Included: Standard Series: Premium Chrome Moly P/N 42248 (.150" wall, 100 grams, 2.250" long, 22.5mm dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42548 (.210" wall, 128 grams, 2.250" long, 22.5mm dia.)  
 Round Wire Locks: P/N 42270

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Mitsubishi

- **4G63/4G63T 1st Gen 6 Bolt**
- **4G63/4G63T 2nd Gen 7 Bolt / EVO VIII, IX**

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall x 2.250" length Premium Chrome Moly pin (Standard Series) included
- ▶ .827"/21mm 6 bolt (P/N 42243) & .866"/22mm 7 bolt (P/N 42251)
- ▶ 9310 alloy .210" wall pin (Included with Extreme Duty Series – P/N 42543 for 6 bolt & P/N 42551 for 7 bolt)
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
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### Mitsubishi Eclipse GST/GSX-Eagle Talon TSi 90-93.5 (6 Bolt) - 4G63/4G63T

						88mm STD STROKE (2.0L)		DSM	DSM			
605000C-4	605000CE-4	85	STD	150	88	1.375"	-12	47	8.5	Dish	340	46850-4
605005C-4	605005CE-4	85.5	+1.5mm	150	88	1.375"	-12	47	8.5	Dish	344	46855-4
605010C-4	605010CE-4	86	+1.0mm	150	88	1.375"	-12	47	8.5	Dish	348	46860-4
605100C-4	605100CE-4	85	STD	150	88	1.375"	-8	47	9.0	Dish	349	46850-4
605105C-4	605105CE-4	85.5	+1.5mm	150	88	1.375"	-8	47	9.0	Dish	356	46855-4
605110C-4	605110CE-4	86	+1.0mm	150	88	1.375"	-8	47	9.0	Dish	365	46860-4

### 100mm STROKER (2.3L)

607005C-4	607005CE-4	85.5	+1.5mm	150	100	1.130"	-22	47	8.5	Dish	300	46855-4
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### Mitsubishi Eclipse GST/GSX-Eagle Talon TSi 93.5-99 (7 Bolt) - 4G63/4G63T Evo VIII, IX 03-06 4G63T

						88mm STD STROKE (2.0L)		DSM/EVO	DSM/EVO			
606000C-4	606000CE-4	85	STD	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	337	46850-4
606005C-4	606005CE-4	85.5	+1.5mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	341	46855-4
606010C-4	606010CE-4	86	+1.0mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	345	46860-4
606015C-4	606015CE-4	86.5	+1.5mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	349	46865-4
606020C-4	606020CE-4	87	+2.0mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	354	46870-4
606100C-4	606100CE-4	85	STD	150	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	342	46850-4
606105C-4	606105CE-4	85.5	+1.5mm	150	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	350	46855-4
606110C-4	606110CE-4	86	+1.0mm	150	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	358	46860-4
606115C-4	606115CE-4	86.5	+1.5mm	150	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	350	46865-4
606120C-4	606120CE-4	87	+2.0mm	150	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	359	46870-4
606200C-4	606200CE-4	85	STD	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	339	46850-4
606205C-4	606205CE-4	85.5	+1.5mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	347	46855-4
606210C-4	606210CE-4	86	+1.0mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	355	46860-4
606215C-4	606215CE-4	86.5	+1.5mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	352	46865-4
606220C-4	606220CE-4	87	+2.0mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	360	46870-4
617000C-4	617000CE-4	85	STD	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	298	46850-4
617005C-4	617005CE-4	85.5	+1.5mm	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	305	46855-4
617010C-4	617010CE-4	86	+1.0mm	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	313	46860-4
617015C-4	617015CE-4	86.5	+1.5mm	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	312	46865-4
617020C-4	617020CE-4	87	+2.0mm	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	320	46870-4

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Mitsubishi

### • 4G63/4G63T 2nd GEN 7 Bolt / EVO VIII, IX

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall x 2.250" length Premium Chrome Moly pin (Standard Series – P/N 42251) included .866"/22mm
- ▶ 9310 alloy .210" wall pin (Included with Extreme Duty Series – P/N 42551)
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
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#### Mitsubishi Eclipse GST/GSX-Eagle Talon Tsi 93.5-99 (7 Bolt) - 4G63/4G63T Evo VIII, IX 03-06 4G63T

		94mm STROKER (2.1L)				DSM/EVO		DSM/EVO				
618000C-4	618000CE-4	85	STD	150	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	311	46850-4
618005C-4	618005CE-4	85.5	+.5mm	150	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	319	46855-4
618010C-4	618010CE-4	86	+1.0mm	150	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	327	46860-4
618015C-4	618015CE-4	86.5	+1.5mm	150	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	327	46865-4
618020C-4	618020CE-4	87	+2.0mm	150	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	334	46870-4
618200C-4	618200CE-4	85	STD	150	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	322	46850-4
618205C-4	618205CE-4	85.5	+.5mm	150	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	328	46855-4
618210C-4	618210CE-4	86	+1.0mm	150	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	337	46860-4
618215C-4	618215CE-4	86.5	+1.5mm	150	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	335	46865-4
618220C-4	618220CE-4	87	+2.0mm	150	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	344	46870-4
619000C-4	619000CE-4	85	STD	156	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	272	46850-4
619005C-4	619005CE-4	85.5	+.5mm	156	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	277	46855-4
619010C-4	619010CE-4	86	+1.0mm	156	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	287	46860-4
619015C-4	619015CE-4	86.5	+1.5mm	156	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	289	46865-4
619020C-4	619020CE-4	87	+2.0mm	156	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	296	46870-4
619200C-4	619200CE-4	85	STD	156	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	283	46850-4
619205C-4	619205CE-4	85.5	+.5mm	156	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	290	46855-4
619210C-4	619210CE-4	86	+1.0mm	156	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	293	46860-4
619215C-4	619215CE-4	86.5	+1.5mm	156	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	295	46865-4
619220C-4	619220CE-4	87	+2.0mm	156	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	302	46870-4

#### Mitsubishi Eclipse GST/GSX-Eagle Talon Tsi 93.5-99 (7 Bolt) - 4G63/4G63T Evo VIII, IX 03-06 4G63T

		100mm STROKER (2.3L)				DSM/EVO		DSM/EVO				
608000C-4	608000CE-4	85	STD	150	100	1.130"	-22	47 / 43	8.5 / 9.0	Dish	291	46850-4
608005C-4	608005CE-4	85.5	+.5mm	150	100	1.130"	-22	47 / 43	8.5 / 9.0	Dish	295	46855-4
608010C-4	608010CE-4	86	+1.0mm	150	100	1.130"	-22	47 / 43	8.5 / 9.0	Dish	299	46860-4
608015C-4	608015CE-4	86.5	+1.5mm	150	100	1.130"	-22	47 / 43	8.5 / 9.0	Dish	300	46865-4
608020C-4	608020CE-4	87	+2.0mm	150	100	1.130"	-22	47 / 43	8.5 / 9.0	Dish	307	46870-4
617000C-4	617000CE-4	85	STD	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	298	46850-4
617005C-4	617005CE-4	85.5	+.5mm	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	305	46855-4
617010C-4	617010CE-4	86	+1.0mm	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	313	46860-4
617015C-4	617015CE-4	86.5	+1.5mm	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	312	46865-4
617020C-4	617020CE-4	87	+2.0mm	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	320	46870-4

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



PISTONS, RINGS, & PINS

# PLATINUM SERIES PISTONS

## Mitsubishi

### • 4G63/4G63T 2nd GEN 7 Bolt / EVO VIII, IX Turbo Tuff® Design

- ▶ 2618 high strength material
- ▶ 2.250" x .250" wall 9310 alloy pin included P/N 42552
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Machined Struts
- ▶ Vertical Gas Ports designed for high HP Race Engines
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



PISTONS, RINGS, & PINS

Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included RingSet
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Mitsubishi Eclipse GST/GSX-Eagle Talon Tsi 93.5-99 (7 Bolt) - 4G63/4G63T Evo VIII, IX 03-06 4G63T

88mm STD STROKE (2.0L)      DSM/EVO    DSM/EVO

<b>606300CE-4</b>	85	STD	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	363	<b>46850-4</b>
<b>606305CE-4</b>	85.5	+5mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	369	<b>46855-4</b>
<b>606310CE-4</b>	86	+1.0mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	375	<b>46860-4</b>
<b>606400CE-4</b>	85	STD	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	372	<b>46850-4</b>
<b>606405CE-4</b>	85.5	+5mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	376	<b>46855-4</b>
<b>606410CE-4</b>	86	+1.0mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	380	<b>46860-4</b>
<b>617100CE-4</b>	85	STD	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	327	<b>46850-4</b>
<b>617105CE-4</b>	85.5	+5mm	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	329	<b>46855-4</b>
<b>617110CE-4</b>	86	+1.0mm	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	331	<b>46860-4</b>
<b>617200CE-4</b>	85	STD	156	88	1.130"	-2.5	47 / 43	10.0 / 10.5	Flat Top	331	<b>46850-4</b>
<b>617205CE-4</b>	85.5	+5mm	156	88	1.130"	-2.5	47 / 43	10.0 / 10.5	Flat Top	335	<b>46855-4</b>
<b>617210CE-4</b>	86	+1.0mm	156	88	1.130"	-2.5	47 / 43	10.0 / 10.5	Flat Top	339	<b>46860-4</b>

Mitsubishi Eclipse GST/GSX-Eagle Talon Tsi 93.5-99 (7 Bolt) - 4G63/4G63T Evo VIII, IX 03-06 4G63T

100mm STROKER (2.3L)      DSM/EVO    DSM/EVO

<b>617100CE-4</b>	85	STD	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	327	<b>46850-4</b>
<b>617105CE-4</b>	85.5	+5mm	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	329	<b>46855-4</b>
<b>617110CE-4</b>	86	+1.0mm	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	331	<b>46860-4</b>

### Common Features

Crown Thickness: .320"  
 Top Ring: 1.2mm, .350" down (606 series)  
                   .325" down (617 series)  
 Second Ring: 1.2mm  
 Oil Ring: 2.8mm

Valve Notches: .205" Int., 205" Exh.  
 Pin Included: 9310 Alloy P/N 42552  
                   ( .250" wall, 139 grams, 2.250" long, 22mm dia. )  
 Round Wire Locks: P/N 42270

Note: New part numbers are **BOLD & ITALICIZED**

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Mitsubishi

### • 4G64 w/ 4G63 Cylinder Head

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall x 2.250" length Premium Chrome Moly pin (Standard Series – P/N 42251) included .866"/22mm
- ▶ 9310 alloy .210" wall pin (Included with Extreme Duty Series – P/N 42551)
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
<b>Mitsubishi 4G64 w/ 4G63 Head 95-99</b>												
<b>88mm DE-STROKED (2.1L) DSM/EVO DSM/EVO</b>												
606015C-4	606015CE-4	86.5	STD	156	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	349	46865-4
606020C-4	606020CE-4	87	+5mm	156	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	354	46870-4
606115C-4	606115CE-4	86.5	STD	156	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	350	46865-4
606120C-4	606120CE-4	87	+5mm	156	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	359	46870-4
606215C-4	606215CE-4	86.5	STD	156	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	352	46865-4
606220C-4	606220CE-4	87	+5mm	156	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	360	46870-4
617015C-4	617015CE-4	86.5	STD	162	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	312	46865-4
617020C-4	617020CE-4	87	+5mm	162	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	320	46870-4
<b>94mm DE-STROKED (2.2L)</b>												
618015C-4	618015CE-4	86.5	STD	156	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	327	46865-4
618020C-4	618020CE-4	87	+5mm	156	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	334	46870-4
618215C-4	618215CE-4	86.5	STD	156	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	335	46865-4
618220C-4	618220CE-4	87	+5mm	156	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	344	46870-4
619015C-4	619015CE-4	86.5	STD	162	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	289	46865-4
619020C-4	619020CE-4	87	+5mm	162	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	296	46870-4
619215C-4	619215CE-4	86.5	STD	162	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	295	46865-4
619220C-4	619220CE-4	87	+5mm	162	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	302	46870-4
<b>100mm STD STROKE (2.4L)</b>												
613000C-4	613000CE-4	86.5	STD	150	100	1.375"	-23.5	47 / 43	8.5 / 9.0	Dish	338	46865-4
613005C-4	613005CE-4	87	+5mm	150	100	1.375"	-23.5	47 / 43	8.5 / 9.0	Dish	346	46870-4
606015C-4	606015CE-4	86.5	STD	150	100	1.375"	-12	47 / 43	10.0 / 10.5	Dish	349	46865-4
606020C-4	606020CE-4	87	+5mm	150	100	1.375"	-12	47 / 43	10.0 / 10.5	Dish	354	46870-4
608015C-4	608015CE-4	86.5	STD	156	100	1.130"	-22	47 / 43	8.6 / 9.1	Dish	300	46865-4
608020C-4	608020CE-4	87	+5mm	156	100	1.130"	-22	47 / 43	8.6 / 9.1	Dish	307	46870-4
617015C-4	617015CE-4	86.5	STD	156	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	312	46865-4
617020C-4	617020CE-4	87	+5mm	156	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	320	46870-4

## Mitsubishi

### • 4B11T EVO X

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .180" wall x 2.250" length Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .210" wall pin (Included with Extreme Duty Series)
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
<b>Mitsubishi EVO X 08-Up - 4B11T</b>												
<b>86mm STD STROKE (2.0L)</b>												
614000C-4	614000CE-4	86	STD	143.66	86	1.313"	-5	49	9.0	Dish	337	46860-4
614005C-4	614005CE-4	86.5	+5mm	143.66	86	1.313"	-5	49	9.0	Dish	343	46865-4
614100C-4	614100CE-4	86	STD	143.66	86	1.313"	+2	49	10.0	Dome	360	46860-4
614105C-4	614105CE-4	86.5	+5mm	143.66	86	1.313"	+2	49	10.0	Dome	366	46865-4
<b>94mm STROKER (2.2L)</b>												
624000C-4	624000CE-4	86	STD	143.66	94	1.155"	-11	49	9.0	Dish	308	46860-4
624005C-4	624005CE-4	86.5	+5mm	143.66	94	1.155"	-11	49	9.0	Dish	315	46865-4
624100C-4	624100CE-4	86	STD	143.66	94	1.155"	-3.5	49	10.0	Dish	327	46860-4
624105C-4	624105CE-4	86.5	+5mm	143.66	94	1.155"	-3.5	49	10.0	Dish	333	46865-4

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



PISTONS, RINGS, & PINS

# PLATINUM SERIES PISTONS

## Mitsubishi

### • 4B11T EVO X Turbo Tuff® Design

- ▶ 2618 high strength material
- ▶ 2.250 x .210" wall 9310 alloy pin included P/N 42553
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Machined Struts
- ▶ Vertical Gas Ports designed for high HP Race Engines
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
Mitsubishi Evo X 08-Up - 4B11T											
<b>86mm STD STROKE (2.0L)</b>											
614200CE-4	86	STD	143.66	86	1.313"	-5	49	9.0	Dish	373	46860-4
614205CE-4	86.5	+.5mm	143.66	86	1.313"	-5	49	9.0	Dish	379	46865-4
614300CE-4	86	STD	143.66	86	1.313"	+2	49	10.0	Dome	384	46860-4
614305CE-4	86.5	+.5mm	143.66	86	1.313"	+2	49	10.0	Dome	390	46865-4
<b>94mm STROKER (2.2L)</b>											
624200CE-4	86	STD	143.66	94	1.155"	-11	49	9.0	Dish	339	46860-4
624205CE-4	86.5	+.5mm	143.66	94	1.155"	-11	49	9.0	Dish	345	46865-4
624300CE-4	86	STD	143.66	94	1.155"	-3.5	49	10.0	Dish	345	46860-4
624305CE-4	86.5	+.5mm	143.66	94	1.155"	-3.5	49	10.0	Dish	351	46865-4

### Common Features

Crown Thickness: .320"  
 Top Ring: 1.2mm, .350" down  
 Second Ring: 1.2mm  
 Oil Ring: 2.8mm

Valve Notches: .175" Int., 175" Exh.  
 Pin Included: 9310 Alloy P/N 42553  
 (.210" wall, 132 grams, 2.250" long, 23mm dia.)  
 Round Wire Locks: P/N 42262

## Nissan

### • SR20DE/DET

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin (Standard Series) included P/N 42251
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42551
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance: .0035" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
Nissan 180SX/200SX/Sentra 2.0L SR20DE/DET 16V											
638000C-4	638000CE-4	86	STD	5.365"	86	1.260"	-12	9.0	Dish	335	46860-4
638002C-4	638002CE-4	86.25	+.25mm	5.365"	86	1.260"	-12	9.0	Dish	340	46862-4
638005C-4	638005CE-4	86.5	+.5mm	5.365"	86	1.260"	-12	9.0	Dish	345	46865-4
638010C-4	638010CE-4	87	+1.0mm	5.365"	86	1.260"	-12	9.0	Dish	350	46870-4

### Common Features

Crown Thickness: .225"  
 Top Ring: 1.2mm, .300" down  
 Second Ring: 1.2mm  
 Oil Ring: 2.8mm

Pin Included: Standard Series: Premium Chrome Moly P/N 42251  
 (.150" wall, 96 grams, 2.250" long, 22mm dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42551  
 (.210" wall, 125 grams, 2.250" long, 22mm dia.)  
 Round Wire Locks: P/N 42270

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Nissan

### • RB26DETT

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin (Standard Series) included P/N 42243
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42543
- ▶ Pressure balance groove
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured .850" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
Nissan Skyline 2.6L RB26DETT 24V (.827"/21mm x 2.250" Pin)												
73.7mm STD STROKE (2.6L)												
643002C-6	643002CE-6	86.25	+.25mm	4.783"	73.7	1.181"	+20	66.5	9.0	Dome	390	47862-6
643005C-6	643005CE-6	86.50	+.5mm	4.783"	73.7	1.181"	+20	66.5	9.0	Dome	393	47865-6
643007C-6	643007CE-6	86.75	+.75mm	4.783"	73.7	1.181"	+20	66.5	9.0	Dome	396	47867-6
643010C-6	643010CE-6	87.00	+1.0mm	4.783"	73.7	1.181"	+20	66.5	9.0	Dome	399	47870-6
77.7mm STROKER (2.7L)												
643102C-6	643102CE-6	86.25	+.25mm	4.783"	77.7	1.103"	+17	66.5	9.0	Dome	TBA	47862-6
643105C-6	643105CE-6	86.50	+.5mm	4.783"	77.7	1.103"	+17	66.5	9.0	Dome	TBA	47865-6
643107C-6	643107CE-6	86.75	+.75mm	4.783"	77.7	1.103"	+17	66.5	9.0	Dome	TBA	47867-6
643110C-6	643110CE-6	87.00	+1.0mm	4.783"	77.7	1.103"	+17	66.5	9.0	Dome	TBA	47870-6

## Nissan

### • VR30DDTT 2016-Up

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .180" wall Premium Chrome Moly pin (Standard Series) or 9310 alloy .210" wall pin (Extreme Duty Series) included
- ▶ Pressure balance groove
- ▶ Premium Steel top rings with Napier seconds and round wire locks included



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Compression Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
642GR1-1*	642EGR1-1*	86.0 Grade 1	5.975"	86.0	1.157"	-3.5	10.0:1	Flat Top	326	46860-1
642GR2-1*	642EGR2-1*	86.0 Grade 2	5.975"	86.0	1.157"	-3.5	10.0:1	Flat Top	326	46860-1

\* These pistons feature skirt diameters that correspond to the OEM Grade 1 or 2 bores resulting in a piston to wall clearance range of .0025" - .0034". Check the bore grades on the back of your block and order the appropriate quantities of Grade 1 or 2 pistons. (Sold as -1 individual pieces, not sets.)

### Common Features

Crown Thickness: .250"  
 Top Ring: 1.2mm, .260" down  
 Second Ring: 1.2mm  
 Oil Ring: 2.8mm

Pin Included: Standard Series: Premium Chrome Moly P/N 42353 (.180" wall, 119 grams, 2.250" long, 23mm dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42553 (.210" wall, 132 grams, 2.250" long, 23mm dia.)  
 Round Wire Locks: P/N 42262

## Nissan

### • VQ35DE

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin included P/N 42207
- ▶ 9310 alloy .210" wall pin upgrades available P/N 42507 (see page 33)
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Compression Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
Nissan 350Z, Maxima, Altima and Infiniti G35 2003-2007 (.866"/22mm x 2.500" Pin)											
623000C-6	95.50	STD	5.680"	81.4	1.167"	-12	57	8.5	Dish	386	46955-6
623002C-6	95.75	+.25mm	5.680"	81.4	1.167"	-12	57	8.5	Dish	389	46957-6
623005C-6	96.00	+.5mm	5.680"	81.4	1.167"	-12	57	8.5	Dish	393	46960-6
623010C-6	96.50	+1.0mm	5.680"	81.4	1.167"	-12	57	8.5	Dish	400	46965-6
623100C-6	95.50	STD	5.680"	81.4	1.167"	+7	57	11.0	Dome	418	46955-6
623102C-6	95.75	+.25mm	5.680"	81.4	1.167"	+7	57	11.0	Dome	421	46957-6
623105C-6	96.00	+.5mm	5.680"	81.4	1.167"	+7	57	11.0	Dome	425	46960-6
623110C-6	96.50	+1.0mm	5.680"	81.4	1.167"	+7	57	11.0	Dome	432	46965-6

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Nissan GT-R VR38DETT 88.4mm & 94.4mm Strokes

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .180" wall Premium Chrome Moly pin (Standard 625 Series) included
- ▶ .210" wall Premium Chrome Moly pin (Standard 633/634/635 Series) included
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42546
- ▶ Turbo Tuff/DLC .250" wall P/N 42745 and .300" wall P/N 42746 upgrades available
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring set with Napier second ring and 9-13 lb. tension oil ring included
- ▶ Round wire locks included



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Rod Length	Displacement	Comp Distance	Dome Vol (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
<b>88.4mm STD STROKE</b>										
625GR1-1*	625EGR1-1*	95.5 Grade 1	6.500"	3.8L	1.350"	-1.5	9.25	Flat Top	449	46956-1
625GR2-1*	625EGR2-1*	95.5 Grade 2	6.500"	3.8L	1.350"	-1.5	9.25	Flat Top	449	46956-1
625GR3-1*	625EGR3-1*	95.5 Grade 3	6.500"	3.8L	1.350"	-1.5	9.25	Flat Top	449	46956-1
634010C-6	634010CE-6	99.0	6.500"	4.08L	1.350"	-2	9.8	Flat Top	488	46990-6
<b>94.4mm STROKER</b>										
633GR1-1*	633EGR1-1*	95.5 Grade 1	6.500"	4.06L	1.232"	-1.5	9.8	Flat Top	423	46956-1
633GR2-1*	633EGR2-1*	95.5 Grade 2	6.500"	4.06L	1.232"	-1.5	9.8	Flat Top	423	46956-1
633GR3-1*	633EGR3-1*	95.5 Grade 3	6.500"	4.06L	1.232"	-1.5	9.8	Flat Top	423	46956-1
635010C-6	635010CE-6	99.0	6.500"	4.36L	1.232"	-7	9.8	Dish	460	46990-6
635015C-6	635015CE-6	99.5	6.500"	4.40L	1.232"	-7	9.9	Dish	465	46996-6

\* These pistons feature skirt diameters that correspond to the OEM Grade 1, 2 or 3 bores resulting in a piston to wall clearance range of .0032" - .0039". Check the bore grades on the back of your block and order the appropriate quantities of Grade 1, 2 or 3 pistons. (Sold as -1 individual pieces, not sets.)

### Common Features

Crown Thickness: .260"  
 Top Ring: 1.2mm, .260" down  
 Second Ring: 1.2mm Napier profile  
 Oil Ring: 3.0mm  
 Intake Valve Notch: .065" / 1.65mm (625/633 Series)  
 .105" / 2.67mm (634/635 Series)  
 Round Wire Locks: P/N 42212

### Pin Included:

Standard 625 Series: Premium Chrome Moly P/N 42346 (.180" wall, 132 grams, 2.500" long, 23mm dia.)  
 Standard 633/634/635 Series: Premium Chrome Moly P/N 42646 (.210" wall, 147 grams, 2.500" long, 23mm dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42546 (.210" wall, 147 grams, 2.500" long, 23mm dia.)

### Recommended Piston Clearance:

(625/633 Series) Grade Range 1, 2 or 3 Drop-In measured 1.100" from bottom of oil ring  
 (634/635 Series) .0035" measured 1.100" from bottom of oil ring

## Nissan GT-R VR38DETT 88.4mm Stock Stroke

### Turbo Tuff Design for .990" Diameter Pins

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .200"-.250" tapered wall .990" diam. Turbo Tuff/DLC pin included
- ▶ Asymmetrical skirt design
- ▶ Lateral gas ports (12 places)
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring set with Napier second ring and 9-13 lb. tension oil ring included
- ▶ Round wire locks included



Part No.	Bore Size mm	Rod Length	Stroke mm	Displacement	Comp Distance	Dome Vol (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
641000CE-6*	98.0	6.500"	88.4	4.08L	1.350"	-2	9.8	Flat Top	502	46980-6
641010CE-6*	99.0	6.500"	88.4	4.12L	1.350"	-2	9.9	Flat Top	519	46990-6

\* These pistons are designed for use with Manley connecting rod P/N 15444-6 that are made for a .990" wrist pin size

### Common Features

Crown Thickness: .240"  
 Top Ring: 1.2mm, .280" down  
 Second Ring: 1.5mm Napier profile  
 Oil Ring: 3.0mm  
 Intake Valve Notch: .105" / 2.67mm

### Round Wire Locks:

P/N 42245

### Pin Included:

Turbo Tuff/DLC P/N 42747 (.200"-.250" wall, 188 grams, 2.500" long, .990" dia.)

### Recommended Piston Clearance:

.0035" measured 1.100" from bottom of oil ring

SEE PAGE 30 & 31 FOR CUSTOM PISTONS





# PLATINUM SERIES PISTONS

## Subaru

### • FA20 BRZ 2013-Up / FA20 WRX 2015-Up

- ▶ 2618 high strength material; Lightweight design
- ▶ 2.250" x .150" wall Premium Chrome Moly pin (Standard Series) included P/N 42251
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42551
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance: .003" for mildly boosted and .0035" for highly boosted measured .850" from the bottom of the oil ring



Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
<b>SUBARU BRZ 2013-UP</b>											
632600CA-1*	632600CEA-1*	86.00	STD	5.090"	86	1.285"	-11.4	10.0	Dish	329	46861DT-1
632600CB-1*	632600CEB-1*	86.00	STD	5.090"	86	1.285"	-11.4	10.0	Dish	329	46861DT-1
632601C-4	632601CE-4	86.10	+ .1mm	5.090"	86	1.285"	-11.4	10.0	Dish	330	46861DT-4
632602C-4	632602CE-4	86.25	+ .25mm	5.090"	86	1.285"	-11.4	10.0	Dish	331	46863DT-4
632605C-4	632605CE-4	86.50	+ .5mm	5.090"	86	1.285"	-11.4	10.0	Dish	334	46866DT-4
<b>SUBARU WRX 2015-Up</b>											
632700CA-1*	632700CEA-1*	86.00	STD	5.090"	86	1.285"	-13	10.0	Dish	340	46861DT-1
632700CB-1*	632700CEB-1*	86.00	STD	5.090"	86	1.285"	-13	10.0	Dish	340	46861DT-1
632701C-4	632701CE-4	86.10	+ .1mm	5.090"	86	1.285"	-13	10.0	Dish	341	46861DT-4
632702C-4	632702CE-4	86.25	+ .25mm	5.090"	86	1.285"	-13	10.0	Dish	350	46863DT-4
632705C-4	632705CE-4	86.50	+ .5mm	5.090"	86	1.285"	-13	10.0	Dish	353	46866DT-4

\*These pistons feature skirt diameters that correspond to the OEM Grade A or B bores resulting in a piston to wall clearance range of .0023" - .0031". Check the bore grades on the top of your block and order the appropriate quantities of Grade A or B pistons. (Sold as -1 individual pieces, not sets.)

## Subaru

### • EJ205 WRX

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ 2.500" x .180" wall Premium Chrome Moly pin (Standard Series) included P/N 42346
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42546
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance: .003" for mildly boosted and .0035" for highly boosted measured .850" (79mm stroke) and 1.100" (75mm stroke) from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
<b>Subaru WRX 1998-2005 - EJ205</b>											
<b>75mm STD STROKE (2.0L)</b>											
615000C-4	615000CE-4	92.00	STD	5.137"	1.285"	-12	48	8.5	Dish	369	46920DT-4
615005C-4	615005CE-4	92.50	+ .5mm	5.137"	1.285"	-12	48	8.5	Dish	375	46925DT-4
615010C-4	615010CE-4	93.00	+1.0mm	5.137"	1.285"	-12	48	8.5	Dish	383	46930DT-4
<b>79mm STROKER (2.3L)</b>											
620000C-4	620000CE-4	92.00	STD	5.137"	1.209"	-16	48	8.5	Dish	355	46920DT-4
620005C-4	620005CE-4	92.50	+ .5mm	5.137"	1.209"	-16	48	8.5	Dish	361	46925DT-4
620010C-4	620010CE-4	93.00	+1.0mm	5.137"	1.209"	-16	48	8.5	Dish	370	46930DT-4

SEE PAGE 30 & 31 FOR CUSTOM PISTONS

# PLATINUM SERIES PISTONS

## Subaru

### • EJ257 WRX STI



- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ 2.500" x .180" wall Premium Chrome Moly pin (Standard Series) included P/N 42346
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance: .003" for mildly boosted and .0035" for highly boosted measured .850" (79/83mm stroke) and 1.100" (75mm stroke) from the bottom of the oil ring

Standard Part No.	Bore Size mm	Over Size	Rod Length	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
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#### Subaru WRX Sti 2004-up/WRX 2006-up - EJ257

#### 75mm DE-STROKED (2.35L)

621000C-4	99.50	STD	5.137"	1.285"	-18	51	8.5	Dish	429	46995DT-4
621002C-4	99.75	+.25mm	5.137"	1.285"	-18	51	8.5	Dish	434	46997DT-4
621005C-4	100.00	+.5mm	5.137"	1.285"	-18	51	8.5	Dish	438	461000DT-4
621100C-4	99.50	STD	5.137"	1.285"	-6	51	9.8	Flat Top	462	46995DT-4
621102C-4	99.75	+.25mm	5.137"	1.285"	-6	51	9.8	Flat Top	465	46997DT-4
621105C-4	100.00	+.5mm	5.137"	1.285"	-6	51	9.8	Flat Top	469	461000DT-4

#### 79mm STD STROKE (2.5L)

612000CA-1*	99.50 Grade A	STD	5.137"	1.209"	-22	51	8.5	Dish	395	46995DT-1
612000CB-1*	99.50 Grade B	STD	5.137"	1.209"	-22	51	8.5	Dish	395	46995DT-1
612000C-4	99.50	STD	5.137"	1.209"	-22	51	8.5	Dish	395	46995DT-4
612001C-4	99.55	+.05mm	5.137"	1.209"	-22	51	8.5	Dish	395	46995DT-4
612002C-4	99.75	+.25mm	5.137"	1.209"	-22	51	8.5	Dish	398	46997DT-4
612005C-4	100.00	+.5mm	5.137"	1.209"	-22	51	8.5	Dish	402	461000DT-4
612007C-4	100.25	+.75mm	5.137"	1.209"	-22	51	8.5	Dish	405	461002DT-4
612200CA-1*	99.50 Grade A	STD	5.137"	1.209"	-17	57	8.5	Dish	411	46995DT-1
612200CB-1*	99.50 Grade B	STD	5.137"	1.209"	-17	57	8.5	Dish	411	46995DT-1
612200C-4	99.50	STD	5.137"	1.209"	-17	57	8.5	Dish	411	46995DT-4
612201C-4	99.55	+.05mm	5.137"	1.209"	-17	57	8.5	Dish	412	46995DT-4
612202C-4	99.75	+.25mm	5.137"	1.209"	-17	57	8.5	Dish	414	46997DT-4
612205C-4	100.00	+.5mm	5.137"	1.209"	-17	57	8.5	Dish	420	461000DT-4
612207C-4	100.25	+.75mm	5.137"	1.209"	-17	57	8.5	Dish	423	461002DT-4
612100C-4	99.50	STD	5.137"	1.209"	-10	51	9.8	Dish	419	46995DT-4
612102C-4	99.75	+.25mm	5.137"	1.209"	-10	51	9.8	Dish	423	46997DT-4
612105C-4	100.00	+.5mm	5.137"	1.209"	-10	51	9.8	Dish	426	461000DT-4

#### 83mm STROKER (2.7L)

622000C-4	99.50	STD	5.137"	1.130"	-26	51	8.5	Dish	379	46995DT-4
622002C-4	99.75	+.25mm	5.137"	1.130"	-26	51	8.5	Dish	383	46997DT-4
622005C-4	100.00	+.5mm	5.137"	1.130"	-26	51	8.5	Dish	386	461000DT-4
622100C-4	99.50	STD	5.137"	1.130"	-14	51	9.8	Dish	414	46995DT-4
622102C-4	99.75	+.25mm	5.137"	1.130"	-14	51	9.8	Dish	415	46997DT-4
622105C-4	100.00	+.5mm	5.137"	1.130"	-14	51	9.8	Dish	418	461000DT-4

All pistons on this page include Napier style second rings and higher tension oil rings for improved oil control

\*These pistons feature skirt diameters that correspond to the OEM Grade A or B bores resulting in a piston to wall clearance range of .0023" - .0031". Check the bore grades on the top of your block and order the appropriate quantities of Grade A or B pistons. (Sold as -1 individual pieces, not sets.)

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



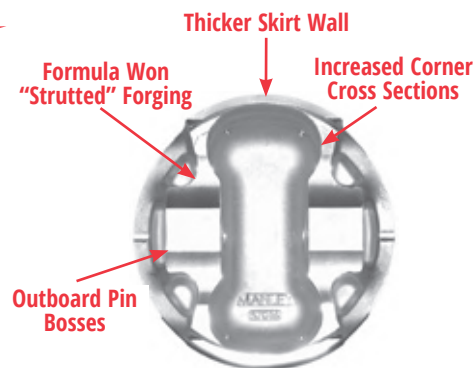
# PLATINUM SERIES PISTONS

## Subaru

• **EJ257 WRX STi 2004-Up**

### Turbo Tuff® Design

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ 2.500" x .180" wall Premium Chrome Moly pin (Standard Series) included P/N 42346
- ▶ 9310 alloy .250" wall pin (Extreme Duty Series) included P/N 42547
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance: .003" for mildly boosted and .0035" for highly boosted measured .850" (79/83mm stroke) and 1.100" (75mm stroke) from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
<b>75mm DE-STROKED (2.35L)</b>											
632000C-4	632000CE-4	99.50	STD	5.137"	1.285"	-18	51	8.5	Dish	439	46995DT-4
632002C-4	632002CE-4	99.75	+.25mm	5.137"	1.285"	-18	51	8.5	Dish	444	46997DT-4
632005C-4	632005CE-4	100.00	+.5mm	5.137"	1.285"	-18	51	8.5	Dish	448	461000DT-4
632100C-4	632100CE-4	99.50	STD	5.137"	1.285"	-6	51	9.8	Flat Top	472	46995DT-4
632102C-4	632102CE-4	99.75	+.25mm	5.137"	1.285"	-6	51	9.8	Flat Top	475	46997DT-4
632105C-4	632105CE-4	100.00	+.5mm	5.137"	1.285"	-6	51	9.8	Flat Top	479	461000DT-4
<b>79mm STD STROKE (2.5L)</b>											
632200CA-1*	632200CEA-1*	99.50 Grade A	STD	5.137"	1.209"	-22	51	8.5	Dish	405	46995DT-1
632200CB-1*	632200CEB-1*	99.50 Grade B	STD	5.137"	1.209"	-22	51	8.5	Dish	405	46995DT-1
632200C-4	632200CE-4	99.50	STD	5.137"	1.209"	-22	51	8.5	Dish	405	46995DT-4
632201C-4	632201CE-4	99.55	+.05mm	5.137"	1.209"	-22	51	8.5	Dish	405	46995DT-4
632202C-4	632202CE-4	99.75	+.25mm	5.137"	1.209"	-22	51	8.5	Dish	408	46997DT-4
632205C-4	632205CE-4	100.00	+.5mm	5.137"	1.209"	-22	51	8.5	Dish	412	461000DT-4
632800CA-1*	632800CEA-1*	99.50 Grade A	STD	5.137"	1.209"	-17	57	8.5	Dish	417	46995DT-1
632800CB-1*	632800CEB-1*	99.50 Grade B	STD	5.137"	1.209"	-17	57	8.5	Dish	417	46995DT-1
632800C-4	632800CE-4	99.50	STD	5.137"	1.209"	-17	57	8.5	Dish	417	46995DT-4
632801C-4	632801CE-4	99.55	+.05mm	5.137"	1.209"	-17	57	8.5	Dish	419	46995DT-4
632802C-4	632802CE-4	99.75	+.25mm	5.137"	1.209"	-17	57	8.5	Dish	421	46997DT-4
632805C-4	632805CE-4	100.00	+.5mm	5.137"	1.209"	-17	57	8.5	Dish	423	461000DT-4
632300C-4	632300CE-4	99.50	STD	5.137"	1.209"	-10	51	9.8	Dish	429	46995DT-4
632302C-4	632302CE-4	99.75	+.25mm	5.137"	1.209"	-10	51	9.8	Dish	433	46997DT-4
632305C-4	632305CE-4	100.00	+.5mm	5.137"	1.209"	-10	51	9.8	Dish	436	461000DT-4
<b>83mm STROKER (2.7L)</b>											
632400C-4	632400CE-4	99.50	STD	5.137"	1.130"	-26	51	8.5	Dish	389	46995DT-4
632402C-4	632402CE-4	99.75	+.25mm	5.137"	1.130"	-26	51	8.5	Dish	393	46997DT-4
632405C-4	632405CE-4	100.00	+.5mm	5.137"	1.130"	-26	51	8.5	Dish	396	461000DT-4
632500C-4	632500CE-4	99.50	STD	5.137"	1.130"	-14	51	9.8	Dish	424	46995DT-4
632502C-4	632502CE-4	99.75	+.25mm	5.137"	1.130"	-14	51	9.8	Dish	425	46997DT-4
632505C-4	632505CE-4	100.00	+.5mm	5.137"	1.130"	-14	51	9.8	Dish	428	461000DT-4

All pistons on this page include Napier style second rings and higher tension oil rings for improved oil control

\*These pistons feature skirt diameters that correspond to the OEM Grade A or B bores resulting in a piston to wall clearance range of .0023" - .0031". Check the bore grades on the top of your block and order the appropriate quantities of Grade A or B pistons. (Sold as -1 individual pieces, not sets.)

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Toyota 3UR-FE

### • 3UR-FE 5.7L (2007-Up)

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .210" wall Premium Chrome Moly pin (Standard Series) or 9310 alloy .210" wall pin (Extreme Duty Series) included
- ▶ Pressure balance groove
- ▶ Premium Steel top rings and round wire locks included
- ▶ Recommended piston clearance .0035" measured .850" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
Toyota Tundra, Sequoia, Land Cruiser 200 Series and Lexus LX 570											
<b>64800C-8</b>	<b>64800CE-8</b>	94.0	STD	6.476"	102	1.328"	-14	12.5	Dish	TBA	46940-8
<b>648100C-8</b>	<b>648100CE-8</b>	94.0	STD	6.476"	102	1.328"	-30	10.0	Dish	TBA	46940-8

### Common Features

Crown Thickness: .260"  
 Top Ring: 1.2mm, .350" down  
 Second Ring: 1.2mm  
 Oil Ring: 3.0mm  
 Max. Valve Sizes: 39.0mm Int./Exh.  
 Valve Notches: .235" Int./Exh.

Pin Included: Standard Series: Premium Chrome Moly P/N 42451 (.210" wall, 125 grams, 2.250" long, 22mm dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42551 (.210" wall, 125 grams, 2.250" long, 22mm dia.)  
 Round Wire Locks: P/N 42270

PISTONS, RINGS, & PINS

## Toyota

### • 2JZGTE

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin (Standard Series) or 9310 alloy .210" wall pin (Extreme Duty Series) included
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
<b>86mm STD STROKE (3.0L)</b>												
<b>60900C-6</b>	<b>60900CE-6</b>	86.0	STD	5.590"	86	1.338"	-10	45	9.0	Dish	347	46861-6
<b>609005C-6</b>	<b>609005CE-6</b>	86.5	+5mm	5.590"	86	1.338"	-10	45	9.0	Dish	353	46866-6
<b>609015C-6</b>	<b>609015CE-6</b>	87.0	+1.0mm	5.590"	86	1.338"	-10	45	9.0	Dish	359	46871-6
<b>609100C-6</b>	<b>609100CE-6</b>	86.0	STD	5.590"	86	1.338"	-2.5	45	10.0	Flat Top	347	46861-6
<b>609105C-6</b>	<b>609105CE-6</b>	86.5	+5mm	5.590"	86	1.338"	-2.5	45	10.0	Flat Top	354	46866-6
<b>609115C-6</b>	<b>609115CE-6</b>	87.0	+1.0mm	5.590"	86	1.338"	-2.5	45	10.0	Flat Top	360	46871-6
<b>94mm STROKER (3.4L)</b>												
<b>629100C-6</b>	<b>629100CE-6</b>	86.0	STD	5.590"	94	1.180"	-16	45	9.0	Dish	315	46861-6
<b>629105C-6</b>	<b>629105CE-6</b>	86.5	+5mm	5.590"	94	1.180"	-16	45	9.0	Dish	322	46866-6
<b>629115C-6</b>	<b>629115CE-6</b>	87.0	+1.0mm	5.590"	94	1.180"	-16	45	9.0	Dish	329	46871-6
<b>629000C-6</b>	<b>629000CE-6</b>	86.0	STD	5.590"	94	1.180"	-8	45	10.0	Dish	315	46861-6
<b>629005C-6</b>	<b>629005CE-6</b>	86.5	+5mm	5.590"	94	1.180"	-8	45	10.0	Dish	322	46866-6
<b>629015C-6</b>	<b>629015CE-6</b>	87.0	+1.0mm	5.590"	94	1.180"	-8	45	10.0	Dish	328	46871-6

### Common Features

Crown Thickness: .225"  
 Top Ring: 1.2mm, .275" down Std. Stroke, .265" Stroker  
 Second Ring: 1.5mm  
 Oil Ring: 3.0mm  
 Valve Notches: .240" Int., .225" Exh.

Pin Included: Standard Series: Premium Chrome Moly P/N 42251 (.150" wall, 96 grams, 2.250" long, 22mm dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42551 (.210" wall, 125 grams, 2.250" long, 22mm dia.)  
 Round Wire Locks: P/N 42270 - .061" wide

Note: New part numbers are **BOLD & ITALICIZED**

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Toyota

### • 2JZGTE Turbo Tuff® Design

- ▶ 2618 high strength material
- ▶ 2.250 x .250" wall 9310 alloy pin included P/N 42552
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Machined Struts
- ▶ Vertical Gas Ports designed for high HP Race Engines
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured .850" from the bottom of the oil ring



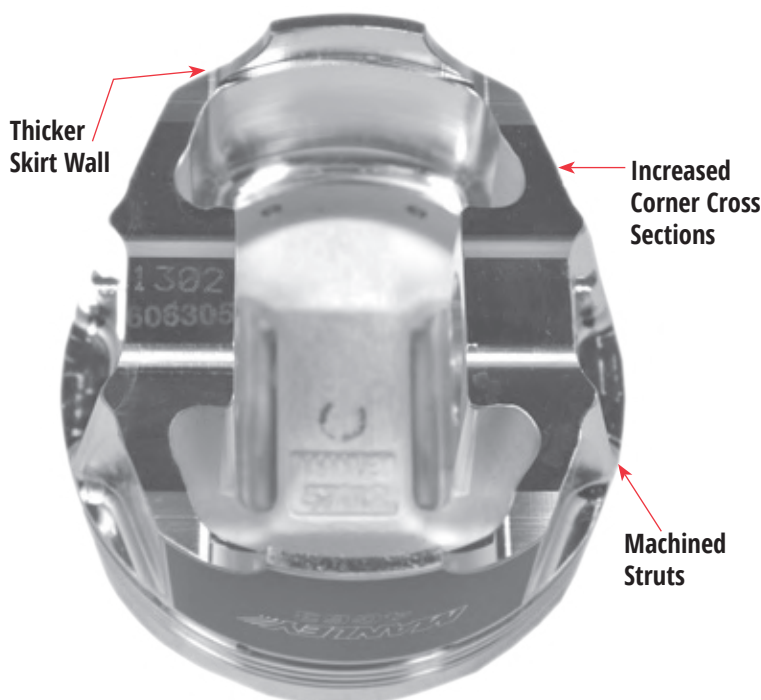
Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
<b>86mm STD STROKE (3.0L)</b>											
609202CE-6	86.25	+.25mm	5.590"	86	1.328"	-8	45	9.0	Dish	368	47862-6
609205CE-6	86.50	+.5mm	5.590"	86	1.328"	-8	45	9.0	Dish	371	47865-6
609207CE-6	86.75	+.75mm	5.590"	86	1.328"	-8	45	9.0	Dish	374	47867-6
609210CE-6	87.00	+1.0mm	5.590"	86	1.328"	-8	45	9.0	Dish	377	47870-6
<b>86mm STD STROKE (3.0L)</b>											
609302CE-6	86.25	+.25mm	5.590"	86	1.328"	-1	45	10.0	Dome	377	47862-6
609305CE-6	86.50	+.5mm	5.590"	86	1.328"	-1	45	10.0	Dome	380	47865-6
609307CE-6	86.75	+.75mm	5.590"	86	1.328"	-1	45	10.0	Dome	383	47867-6
609310CE-6	87.00	+1.0mm	5.590"	86	1.328"	-1	45	10.0	Dome	386	47870-6
<b>94mm STROKER (3.4L)</b>											
629202CE-6	86.25	+.25mm	5.590"	94	1.170"	-14	45	9.0	Dish	340	47862-6
629205CE-6	86.50	+.5mm	5.590"	94	1.170"	-14	45	9.0	Dish	343	47865-6
629207CE-6	86.75	+.75mm	5.590"	94	1.170"	-14	45	9.0	Dish	346	47867-6
629210CE-6	87.00	+1.0mm	5.590"	94	1.170"	-14	45	9.0	Dish	349	47870-6
629302CE-6	86.25	+.25mm	5.590"	94	1.170"	-6	45	10.0	Dish	344	47862-6
629305CE-6	86.50	+.5mm	5.590"	94	1.170"	-6	45	10.0	Dish	347	47865-6
629307CE-6	86.75	+.75mm	5.590"	94	1.170"	-6	45	10.0	Dish	350	47867-6
629310CE-6	87.00	+1.0mm	5.590"	94	1.170"	-6	45	10.0	Dish	353	47870-6

### Common Features

Crown Thickness: .320"  
 Top Ring: 1.0mm, .315" down  
 Second Ring: 1.2mm  
 Oil Ring: 2.8mm

Valve Notches: .240" Int., .225" Exh.  
 Pin Included: 9310 Alloy P/N 42552  
 (.250" wall, 139 grams, 2.250" long, 22mm dia.)  
 Round Wire Locks: P/N 42270

## Turbo Tuff® Pistons



- **Increased Deck Thickness**
- **Vertical Gas Ports**
- **Increased Thickness Below Pin**
- **Pin Piers Machined To Accept Aluminum or Steel Rods**

SEE PAGE 30 & 31 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Platinum Pistons Incremental Sizes

Manley Performance will manufacture incremental bore sizes of any listed catalog piston with reasonably short lead times. The minimum quantity is one set.

The ordering process is as simple as 1 - 2 - 3 !

1. Select the catalog part number you wish manufactured with the singular exception of the final bore size.
2. Tell us the bore size of your block. We will manufacture the exact piston number you have selected with proper clearance for your stated block dimension.
3. You will be billed by our forging number, not the catalog part number.
4. Moly Skirt Coating is optional where available. Additional charge applies.
5. Chrome Moly pins included. Order upgraded pins separately if desired.

## Custom Platinum Series Pistons

Manley Performance inventories the piston forgings listed below to manufacture custom pistons for original equipment engine producers, private label engine part suppliers and volume performance engine builders.

## Custom Blank Billing Numbers

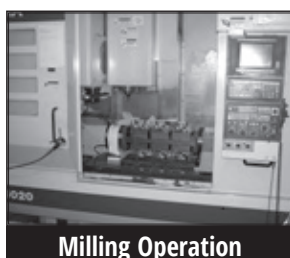
Part No.	Bore Range	Application	Type	Wrist Pin Length
581200-4 or 581200-6	80.5mm - 90mm	Ford, Honda/Acura, Hyundai, Mazda, Mitsubishi, Subaru, Toyota	Dish, Flat Top, Dome	2.250" - 2.500"
581700-4 or 581700-6	84mm - 90mm	Ford, Honda/Acura, Hyundai, Mazda, Mitsubishi, Subaru, Toyota	Dish, Flat Top, Dome	2.250" - 2.300"
588000SC-4 or 588000SC-6	87.5mm - 103mm	Ford, Nissan, Subaru	Dish, Flat Top, Dome	2.250" - 2.500"
582000-4 or 582000-6	87.5mm - 103mm	Nissan	Dish, Flat Top, Dome	2.250" - 2.500"
581600-4	98.5mm - 104mm	Subaru	Dish, Flat Top	2.300" - 2.500"
581400SC-4 or 581400SC-6	98.5mm - 108mm	Subaru	Dish, Flat Top	2.250" - 2.500"
581800SC-4 or 581800SC-6	98.5mm - 108mm	Nissan, Subaru, Toyota	Dish, Flat Top	2.250" - 2.500"

## Optional Additional Cost Machining Operations

Part No.	Operation
04003-1	Fly Cut Shelf Stock Piston
04011-1	Internal Mill - Max. Lightening
04012-1	Gas Port - Vertical (Up to 12)
04013-1	Gas Port - Lateral (Up to 12)
04014-1	Anodize Top Ring Groove
04015-1	Ceramic Coat Top of Piston
04016-4	Moly Skirt Coating (4 cyl.)
04017-6	Moly Skirt Coating (6 cyl.)
04058	2 Week Rush Charge
04059	3 Week Rush Charge

## Minimum Quantities For Custom Pistons

Minimum quantities depend on the variance from pistons we have previously produced, but in general, reasonably small numbers can be manufactured on a one time order basis. Please contact your Manley representative for more details.



**CUSTOMER INFORMATION**

Customer #: \_\_\_\_\_  
Customer Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Purchase Order #: \_\_\_\_\_  
Ship Via: \_\_\_\_\_  
Quantity (pcs): \_\_\_\_\_

**ENGINE/APPLICATION**

Engine Make: \_\_\_\_\_ Model: \_\_\_\_\_  
Cubic Inch/Liters: \_\_\_\_\_ No. of Cyl: \_\_\_\_\_  
Application:  Oval  Drag  Street  
Induction:  N/A  Nitrous  Blower/Turbo  
Total Engine HP: \_\_\_\_\_ Max RPM: \_\_\_\_\_  
Max Boost PSI: \_\_\_\_\_ Nitrous HP: \_\_\_\_\_

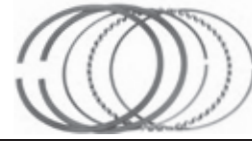
**CUSTOM SPECIFICATION INFORMATION**

Bore Size: \_\_\_\_\_ Comp. Hgt.: \_\_\_\_\_  
Stroke: \_\_\_\_\_ Rod Length: \_\_\_\_\_  
Rod Material: \_\_\_\_\_ P/E Width: \_\_\_\_\_  
Rod Thickness Above Pin: \_\_\_\_\_  
Deck Hgt.: \_\_\_\_\_ Deck Clearance: \_\_\_\_\_  
Cyl. Bore Length: \_\_\_\_\_ Comp. Ratio: \_\_\_\_\_  
Combustion Chamber Volume (cc): \_\_\_\_\_  
Head Gasket - Thickness: \_\_\_\_\_ ID: \_\_\_\_\_  
Piston Type:  Flat Top  Dish  Dome  
Dish/Dome Volume (cc): \_\_\_\_\_  
Land Widths - 1st: \_\_\_\_\_ 2nd: \_\_\_\_\_ 3rd: \_\_\_\_\_  
Purchasing Rings With Order:  Yes  No  
Req. Axial Width - Top: \_\_\_\_\_ 2nd: \_\_\_\_\_ Oil: \_\_\_\_\_  
Ring Type - Top:  Moly  AP Steel  Gapless  
2nd:  Taper Face  Napier  Gapless  
Oil (lbs.): \_\_\_\_\_  
If not purchasing rings please provide:  
Ring Axial Width - Top: \_\_\_\_\_ 2nd: \_\_\_\_\_ Oil: \_\_\_\_\_  
Ring Radial Width - Top: \_\_\_\_\_ 2nd: \_\_\_\_\_ Oil: \_\_\_\_\_  
Gas Ports:  Yes  No  
If yes:  Lateral  Vertical No. of Gas Ports: \_\_\_\_\_  
( Gas Ports are an additional charge )

Pins With Order:  Yes  No  
( Chrome Moly Pins are included with pistons )  
( 9310 Material Pins are an additional charge )  
Wrist Pin Material:  Chrome Moly  9310  
Pin Diameter: \_\_\_\_\_ Pin Length: \_\_\_\_\_  
Wrist Pin Lock P/N: \_\_\_\_\_  
( All locks ordered with pistons are NO CHARGE )  
Number of Valves per Cylinder: \_\_\_\_\_  
Valve Diam. - Int: \_\_\_\_\_ Exh: \_\_\_\_\_  
Pocket Depth - Int: \_\_\_\_\_ Exh: \_\_\_\_\_  
Pocket Angle - Int: \_\_\_\_\_ Exh: \_\_\_\_\_  
Side Cut Style:  Full Band  Modified Full Band  
 Semi Band  No Band  
Crown Thickness Below Dish/Dome: \_\_\_\_\_  
Skirt Wall Thickness: \_\_\_\_\_  
Moly Skirt Coated:  Yes  No  
( Additional Charge - Not Available on all Customs )  
Ceramic Thermal Barrier Crown Coating  
 Yes  No  
( Additional Charge Applies )  
Top Ring Groove Anodizing:  Yes  No  
( Additional Charge Applies )

# PISTON RINGS

## Manley / Total Seal<sup>®</sup> Piston Rings



Premium Steel Part No.	Bore Size	File Fit / Drop In	Ring Widths	Oil Ring Tension
46810-4	81.0mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-11 lbs.
46815-4	81.5mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-11 lbs.
46826-10 *	82.5mm	File Fit	1.0mm x 1.2mm x 2.0mm	9-13 lbs.
46840-4	84.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46845-4	84.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46846-10 *	84.5mm	File Fit	1.0mm x 1.2mm x 2.0mm	9-13 lbs.
46850-4*	85.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46855-4*	85.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46860-4*	86.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46861-6*	86.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46861DT-4 **	86.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
47862-6 ***	86.25mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-10 lbs.
46862-4	86.25mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46863-6 *	86.25mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46863DT-4 **	86.25mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
47865-6 ***	86.5mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-10 lbs.
46865-4*	86.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46866-6*	86.5mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46866DT-4 **	86.5mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
47867-6 ***	86.75mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-10 lbs.
47870-6 ***	87.0mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-10 lbs.
46870-4*	87.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46871-6*	87.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46875-4	87.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46876-4	87.6mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46877-4	87.75mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46880-4	88.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46920-4*	92.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46920DT-4 **	92.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46923-6	92.3mm/3.633"	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46924-6	92.4mm/3.637"	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46925-4*	92.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46925DT-4 **	92.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46926-6	92.6mm/3.647"	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46930-4*	93.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46930DT-4 **	93.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46940-8	94mm	File Fit	1.2mm x 1.2mm x 3.0mm	9-13 lbs.
46955-6	95.5mm	File Fit	1.2mm x 1.2mm x 3.0mm	7-11 lbs.
46956-6*	95.5mm	File Fit	1.2mm x 1.2mm x 3.0mm	9-13 lbs.
46957-6	95.7mm	Drop In Top / File Fit 2nd	1.2mm x 1.2mm x 3.0mm	7-11 lbs.
46960-6	96.0mm	File Fit	1.2mm x 1.2mm x 3.0mm	7-11 lbs.
46965-6	96.5mm	File Fit	1.2mm x 1.2mm x 3.0mm	7-11 lbs.
46980-6*	98.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46990-6*	99.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46995-4**	99.5mm/99.55mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
46995DT-4 **	99.5mm/99.55mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
46996-6 *	99.5mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46997-4**	99.75mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
46997DT-4 **	99.75mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
461000-4**	100.0mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
461000DT-4 **	100.0mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
461002DT-4 **	100.25mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
461001-6	100.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
461010-6 *	101.0mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.
461015-6 *	101.5mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.
461017-6 *	101.75mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.
461020-6 *	102.0mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.
461025-6 *	102.5mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.
461030-6 *	103.0mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.

\* Napier style second rings

\*\* Napier style second rings and tabbed oil rails

\*\*\* NPR rings with Napier style second rings

Note: New part numbers are **BOLD & ITALICIZED**





# WRIST PIN & LOCKS

## Wrist Pins

- ▶ Straight and taper wall construction
- ▶ Large O.D. chamfer pins requiring round wire locks
- ▶ Exacting size control and perfect concentricity
- ▶ Inside of each pin is totally free of tooling marks



Part No.	Quantity	Description	Diameter	Wall Type	Material	Length	Wall Thickness	Lock Rings	Wgt / Grams
42272-6	6 pcs.	Sport Compact	26mm/1.0236"	Straight	Premium Chrome Moly	2.300"	.200"	Tru Arc/Toyota Rnd Wire	152
42572-6	6 pcs.	Sport Compact	26mm/1.0236"	Straight	9310	2.300"	.250"	Tru Arc/Toyota Rnd Wire	178
42747-6	6 pcs.	Sport Compact	.990"	Taper	Turbo Tuff/DLC	2.500"	.200"-.250"	Round Wire	188
42647-4	4 pcs.	Sport Compact	23.05mm / .9075"	Straight	Premium Chrome Moly	2.500"	.210"	Tru Arc/Subaru Rnd Wire	147
42660-4	4 pcs.	Sport Compact	23.05mm / .9075"	Straight	9310	2.300"	.250"	Tru Arc/Subaru Rnd Wire	152
42346-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.500"	.180"	Tru Arc/Subaru Rnd Wire	132
42546-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	9310	2.500"	.210"	Tru Arc/Subaru Rnd Wire	147
42646-6	6 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.500"	.210"	Tru Arc/Subaru Rnd Wire	147
42445-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.500"	.250"	Tru Arc/Subaru Rnd Wire	165
42547-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	9310	2.500"	.250"	Tru Arc/Subaru Rnd Wire	165
42745-6	6 pcs.	Sport Compact	23mm / .9055"	Straight	Turbo Tuff/DLC	2.500"	.250"	Tru Arc/Subaru Rnd Wire	170
42746-6	6 pcs.	Sport Compact	23mm / .9055"	Straight	Turbo Tuff/DLC	2.500"	.300"	Tru Arc/Subaru Rnd Wire	188
42359-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.300"	.180"	Tru Arc/Subaru Rnd Wire	121
42659-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	9310	2.300"	.250"	Tru Arc/Subaru Rnd Wire	152
42353-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.250"	.180"	Round Wire	119
42553-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	9310	2.250"	.210"	Round Wire	132
42248-4	4 pcs.	Sport Compact	22.5mm / .8858"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	100
42548-4	4 pcs.	Sport Compact	22.5mm / .8858"	Straight	9310	2.250"	.210"	Round Wire	128
42225-4	4 pcs.	Sport Compact	22mm / .866"	Straight	Premium Chrome Moly	2.250"	.120"	Round Wire	79
42251-4	4 pcs.	Sport Compact	22mm / .866"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	96
42451-4	4 pcs.	Sport Compact	22mm / .866"	Straight	Premium Chrome Moly	2.250"	.210"	Round Wire	125
42551-4	4 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.250"	.210"	Round Wire	125
42552-4	4 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.250"	.250"	Round Wire	139
42651-4	4 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.250"	.300"	Round Wire	153
42207-6	6 pcs.	Sport Compact	22mm / .866"	Straight	Premium Chrome Moly	2.500"	.150"	Round Wire	106
42407-6	6 pcs.	Sport Compact	22mm / .866"	Straight	Premium Chrome Moly	2.500"	.210"	Round Wire	138
42507-6	6 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.500"	.210"	Round Wire	138
42607-6	6 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.500"	.300"	Round Wire	170
42243-4	4 pcs.	Sport Compact	21mm / .827"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	91
42543-4	4 pcs.	Sport Compact	21mm / .827"	Straight	9310	2.250"	.210"	Round Wire	117
42232-6	6 pcs.	Sport Compact	20mm / .787"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	87
42532-6	6 pcs.	Sport Compact	20mm / .787"	Straight	9310	2.250"	.210"	Round Wire	109

Part numbers 42207, 42407, 42507 and 42607 are also available for 4 cylinder applications by changing the part number from a (-6) to a (-4)  
 Part numbers 42646, 42745 and 42746 are also available for 4 cylinder applications by changing the part number from a (-6) to a (-4)  
 Part numbers 42251, 42451, 42551 and 42651 are also available for 6 cylinder applications by changing the part number from a (-4) to a (-6)  
 Part number 42532 is also available for 10 cylinder applications by changing the part number from a (-6) to a (-10)

## Wrist Pin Locks

Part No.	Quantity	Type	Pin Diameter	Description	Weight / Grams Per Lock
42245-12	12 pcs.	.061" Round Wire	.990"	Nissan GT-R w/ .990" pin	1.0
42212-8	8 pcs.	.054" Round Wire	23mm / .9055"	Factory Style Subaru	1.0
42262-8	8 pcs.	.061" Round Wire	23mm / .9055"	Mitsubishi EVO X	1.0
42270-8	8 pcs.	.061" Round Wire	21mm / .827", 22mm / .866"	Sport Compact	0.8
42255-12	12 pcs.	.050" Round Wire	20mm / .7869"	Sport Compact	0.6

Part number 42270 is also available for 6 cylinder applications by changing the part number from a (-8) to a (-12)  
 Part number 42255 is also available for 10 cylinder applications by changing the part number from a (-12) to a (-20)

## Groove Lock Spacers

Should your custom Platinum Piston requirements necessitate the wrist pin hole break into the oil ring groove, we can widen the oil ring groove and incorporate a groove lock spacer in one of the following sizes listed below. Manley radial tension design ("RTD") groove lock spacers have replaced the old-school, dimpled style pieces. Our pistons requiring G/L spacers are manufactured with a "receiver groove" within the oil ring groove where the RTD G/L spacers snap into place. The radial tension prevents rotation.

Part No.	Quantity	Bore Size	Oil Ring Width	Gram Weight Per Spacer
462458-4	4 pcs.	85mm to 85.5mm	2.8mm	5.4
462459-4	4 pcs.	86mm to 86.75mm	2.8mm	5.5
462460-4	4 pcs.	87mm	2.8mm	5.2
462248-6	6 pcs.	95.5mm to 96.5mm	3mm	6.9
461874-6	6 pcs.	98mm	3mm	7.1
461873-6	6 pcs.	99mm	3mm	7.1
461872-6	6 pcs.	100mm	3mm	6.0

Note: New part numbers are **BOLD & ITALICIZED**



# STEEL CONNECTING RODS

## Acura / Audi / BMW / Dodge / Ford / Honda

### H-Beam Rods



- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% individually magnafluxed
- ▶ Weight matched sets  $\pm 1.5$  grams
- ▶ Cap fasteners are 3/8" ARP 2000 except part number 14017 which is supplied with 7/16" ARP 874
- ▶ Flywheel horsepower range for these rods in a 4 cylinder application is 600+ and for a 6 cylinder application the range is 800+

Note: Part number 14017 is also available with 7/16" ARP 2000 cap screws yielding a 1100+ horsepower rating. Affix "R" after the rod part number (14017R-6)

Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
<b>ACURA</b>							
<b>14014-4</b>	RSX 2.0L V-Tec DOHC K20 2002-up	5.472"	2.008"	.780"	.866" (22mm)	.8671"	525
<b>14025-4</b>	Integra LS 1.8 non V-Tec DOHC ( B18A, B18B, B20B, B20Z 1990-up )	5.394"	1.890"	.935"	.827" (21mm)	.8281"	515
<b>14026-4</b>	Integra GSR 1.8 V-Tec DOHC ( B18C 1994-up )	5.433"	1.890"	.858"	.827" (21mm)	.8281"	500
<b>14013-4*</b>	D16 (all) & ZC	5.394"	1.890"	.898"	.748" (19mm)	.7491"	525
<b>AUDI</b>							
<b>14007-4</b>	1.8L Turbo	5.669"	1.992"	.980"	.787" (20mm)	.7881"	580
<b>BMW</b>							
<b>14078-6</b>	N54B30 (2006-2016)	5.709"	2.110"	.823"	.866" (22mm)	.8671"	570
<b>14079-6</b>	N55/S55 (2009-up)	5.683"	2.110"	.823"	.866" (22mm)	.8671"	565
<b>DODGE</b>							
<b>14004-4</b>	Neon SOHC/DOHC 2.0L 420A	5.472"	2.008"	1.031"	.827" (21mm)	.8281"	570
<b>14010-4</b>	Neon SRT-4 2.4L I4 DOHC	5.945"	2.087"	1.015"	.866" (22mm)	.8671"	595
<b>FORD</b>							
<b>14001-4</b>	Duratec 2.0L DOHC	5.758"	1.970"	.859"	.827" (21mm)	.8281"	550
<b>14080-4</b>	EcoBoost 2.0L	6.136"	2.167"	.860"	.886" (22.5mm)	.8868"	590
<b>14081-4</b>	EcoBoost 2.3L	5.875"	2.167"	.860"	.886" (22.5mm)	.8868"	585
<b>14017-6</b>	BA Falcon XR6 Turbo 4.0L	6.058"	2.239"	.990"	.866" (22mm)	.8671"	645
<b>HONDA</b>							
<b>14012-4</b>	1.6L V-Tec DOHC B16A 1992-up	5.290"	1.890"	.935"	.827" (21mm)	.8281"	535
<b>14013-4*</b>	D16 (all) & ZC	5.394"	1.890"	.898"	.748" (19mm)	.7491"	525
<b>14025-4</b>	CR-V 2.0L DOHC ( B20B/B20Z 1996-2001 )	5.394"	1.890"	.935"	.827" (21mm)	.8281"	515
<b>14015-4</b>	CR-V 2.4L V-Tec DOHC K24 2002-up	5.984"	2.008"	.780"	.866" (22mm)	.8671"	545
<b>14016-4</b>	Prelude 2.2L V-Tec DOHC H22 1992-up	5.636"	2.008"	.935"	.866" (22mm)	.8671"	550

\* Honda D16 may require some minor clearancing at the base of the cylinder walls. This is more common with older ZC, D16A and D16Z6 blocks.

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

Private brand identification available

\*\*Also available in H-Tuff/H-Tuff Plus design, see page 36

Note: New part numbers are **BOLD & ITALICIZED**

# STEEL CONNECTING RODS

## Mazda / Mitsubishi / Nissan / Subaru Toyota / Volkswagen

### H-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% individually magnafluxed
- ▶ Weight matched sets  $\pm$  1.5 grams
- ▶ Cap fasteners are 3/8" ARP 2000 except P/N 14018 which is supplied with 7/16" ARP 8740
- ▶ Flywheel horsepower range for these rods in a 4 cylinder application is 600+ and for a 6 cylinder application the range is 800+



Note: Part number 14018 is also available with 7/16" ARP 2000 cap screws yielding a 1100+ horsepower rating. Affix "R" after the rod part number (14018R-6)

Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
<b>MAZDA</b>							
14011-4	Miata B6/BP 1.6 & 1.8L	5.233"	1.890"	.860"	.787" (20mm)	.7881"	535
14030-4	Mazda Speed 3 MZR 2.3L DISI Turbo	5.927"	2.166"	.859"	.866" (22mm)	.8671"	610
14032-4**	Mazda Speed 3 MZR 2.3L DISI Turbo	5.927"	2.166"	.859"	.886" (22.5mm)	.8868"	610
<b>MITSUBISHI</b>							
14004-4	Eagle Talon SOHC to DOHC 2.0L 420A	5.472"	2.008"	1.031"	.827" (21mm)	.8281"	570
14021-4	Eclipse GS, GST, GSX & Eagle Talon TSi 2.0 (6 Bolt 4G63, 4G63T 1990-1993.5) Recommended bearings to be used: ACL 4B1146/H or Clevite® CB-1120AL	5.905"	1.890"	1.115"	.827" (21mm)	.8281"	550
14002-4	Eclipse GS, GST, GSX & Eagle Talon TSi 2.0 (6 Bolt 4G63, 4G63T 1990-1993.5) Recommended bearings to be used: ACL 4B1146/H or Clevite® CB-1120AL	5.905"	1.890"	1.115"	.866" (22mm)	.8671"	550
14022-4*	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006) Recommended bearings to be used: ACL 4B1185/H or Clevite® CB-1643P	5.905"	1.890"	1.038"	.866" (22mm)	.8671"	580
14020-4*	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006)	6.142" .237" / 6mm Longer	1.890"	1.038"	.866" (22mm)	.8671"	545
14029-4*	EVO X 4B11T (2008-Up)	5.656"	2.165"	.860"	.9055" (23mm)	.9063"	535
<b>NISSAN</b>							
14023-4	2.0 SR20DE, SR20DET (1991-2002)	5.365"	2.008"	.900"	.866" (22mm)	.8671"	505
14006-4	KA24E (1989-1990), KA24DE (1991-1998), 240SX	6.495"	2.086"	.973"	.827" (21mm)	.8281"	615
14000-6	Patrol 4.8 TB48	6.435"	2.362"	1.290"	.9055" (23mm)	.9063"	820
14028-6	RB25DE(T), RB26DETT (Stock 21mm pin)	4.783"	2.008"	.857"	.827" (21mm)	.8281"	490
14018-6	RB30E/T	5.995"	2.087"	.856"	.827" (21mm)	.8281"	610
14019-6	VQ35DE(T) (2002-Up Altima/Maxima and 2003-Up 350Z)	5.680"	2.165"	.820"	.866" (22mm)	.8671"	525
<b>SUBARU</b>							
14024-4*	WRX EJ205/Sti EJ257	5.137"	2.165"	.840"	.9055" (23mm)	.9063"	525
<b>TOYOTA</b>							
14008-4	Celica 1986-1999, MR2 1990-1999 3S-GTE DOHC	5.428"	2.008"	1.055"	.866" (22mm)	.8671"	565
14005-6	Land Cruiser 4.5 1FZ-FE (1993-1998)	6.061"	2.384"	1.096"	1.0236" (26mm)	1.0245"	800
14027-6*	Supra 3.0 2JZG (1993-1998)	5.590"	2.167"	1.015"	.866" (22mm)	.8671"	605
<b>VOLKSWAGEN</b>							
14007-4	1.8L Turbo	5.669"	1.992"	.980"	.787" (20mm)	.7881"	580

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

Private brand identification available

\*Also available in H-Tuff/H-Tuff Plus design, see page 36

# STEEL CONNECTING RODS

## Mazda / Mitsubishi / Subaru / Toyota

### H-Tuff & H-Tuff Plus Rods



- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% individually magnafluxed
- ▶ Weight matched sets  $\pm$  1.5 grams
- ▶ Cap fasteners are 3/8" ARP 2000 for the H-Tuff and 3/8" ARP Custom Age 625+ for the H-Tuff Plus
- ▶ Flywheel horsepower range for these rods in a 4 cylinder application is 750 with the ARP 2000 bolts and 950 with ARP 625+ bolts. In a 6 cylinder application the horsepower range is 1000 with the ARP 2000 bolts and 1200 with the ARP 625+ bolts.

H-Tuff Part No.	H-Tuff Plus Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
<b>MAZDA</b>								
15032-4	15032R6-4	Mazda Speed 3 MZR 2.3L DISI Turbo	5.927"	2.166"	.859"	.886" (22.5mm)	.8868"	640
<b>MITSUBISHI</b>								
15022-4	15022R6-4	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006) Recommended bearings to be used: ACL 4B1185/H or Clevite® CB-1643P	5.905"	1.890"	1.038"	.866" (22mm)	.8671"	635
15020-4	15020R6-4	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006)	6.142"	1.890"	1.038"	.866" (22mm)	.8671"	635
			.237" / 6mm Longer					
15029-4	15029R6-4	EVO X 4B11T (2008-Up)	5.656"	2.165"	.860"	.9055" (23mm)	.9063"	620
<b>SUBARU</b>								
15084-4	15084R6-4	FA20 BRZ 2.0L 2013-Up/WRX 2015-Up	5.090"	2.087"	.843"	.866" (22mm)	.8671"	605
15024-4	15024R6-4	WRX EJ205/STi EJ257	5.137"	2.165"	.840"	.9055" (23mm)	.9063"	575
15036-4	15036R6-4	WRX EJ205/STi EJ257	5.216"	2.165"	.840"	.9055" (23mm)	.9063"	580
			.079" / 2mm Longer					
<b>TOYOTA</b>								
15084-4	15084R6-4	Scion FR-S 2.0L	5.090"	2.087"	.843"	.866" (22mm)	.8671"	605
15027-6	15027R6-6	Supra 3.0 2JZG (1993-1998)	5.590"	2.167"	1.015"	.866" (22mm)	.8671"	645

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

Private brand identification available



• Bridges the gap between our standard, proven H-Beams and top of the line, best of the best Turbo Tuff® Series rods

- H-Tuff delivers a stronger rod with greater safety margin to handle elevated boost and higher power levels for a modest price premium over standard H-Beams
- H-Tuff design incorporates wider beam and increased cross-sectional thickness in critical areas

# STEEL CONNECTING RODS

## Acura / Audi / BMW / Dodge / Ford Honda / Hyundai / Lamborghini

### Pro Series I-Beam Turbo Tuff® Rods

- ▶ Forged from 4340 aircraft quality vacuum degassed material
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Specifically designed to handle high horsepower applications when using turbos and/or nitrous
- ▶ Fasteners are 3/8" except P/N 14427 which is supplied with 7/16" fasteners
- ▶ Flywheel horsepower range for these rods in a 4 cylinder application is 1,000+, for a 6 cylinder application the range is 1,250+ and for a 10 cylinder application the range is 1,500+
- ▶ Flywheel horsepower range for the 300M rod is 2,000+



ARP 2000 Part No.	ARP 625+ Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
<b>ACURA</b>								
14404-4	<b>14404R6-4</b>	RSX 2.0 V-Tec DOHC (K20 2002-up)	5.472"	2.008"	.780"	.866" (22mm)	.8671"	575
14412-4	<b>14412R6-4</b>	Integra LS 1.8 non V-Tec DOHC (B18A, B18B, B20B, B20Z 1990-up)	5.394"	1.890"	.935"	.827" (21mm)	.8281"	575
14414-4	<b>14414R6-4</b>	Integra GSR 1.8 V-Tec DOHC ( B18C 1994-up )	5.433"	1.890"	.858"	.827" (21mm)	.8281"	565
<b>AUDI</b>								
14435-10	<b>14435R6-10</b>	Audi R8 5.2L FSI (2009-up)	6.063"	2.236"	.764"	.787" (20mm)	.7881"	615
<b>BMW</b>								
14448-6	<b>14448R6-6</b>	N54B30 (2006-2016)	5.709"	2.110"	.823"	.866" (22mm)	.8671"	560
14449-6	<b>14449R6-6</b>	N55/S55 (2009-up)	5.683"	2.110"	.823"	.866" (22mm)	.8671"	555
<b>DODGE</b>								
14420-4	<b>14420R6-4</b>	Neon SRT-4 2.4 I4 DOHC	5.945"	2.087"	1.015"	.866" (22mm)	.8671"	695
<b>FORD</b>								
14433-4	<b>14433R6-4</b>	EcoBoost 2.0L	6.136"	2.167"	.860"	.886" (22.5mm)	.8868"	615
14434-4	<b>14434R6-4</b>	EcoBoost 2.3L	5.875"	2.167"	.860"	.886" (22.5mm)	.8868"	585
14427-6	<b>14427R6-6</b>	BA Falcon XR6 Turbo 4.0L	6.058"	2.239"	.990"	.866" (22mm)	.8671"	690
15527-6	<b>15527R6-6</b>	BA Falcon XR6 Turbo 4.0L 300M alloy Heavyweight design	6.058"	2.239"	.990"	.866" (22mm)	.8671"	760
<b>HONDA</b>								
14415-4	<b>14415R6-4</b>	1.6 V-Tec DOHC (B16A 1992-up)	5.290"	1.890"	.935"	.827" (21mm)	.8281"	580
14412-4	<b>14412R6-4</b>	CR-V 2.0L DOHC (B20B/B20Z 1996-2001)	5.394"	1.890"	.935"	.827" (21mm)	.8281"	575
14405-4	<b>14405R6-4</b>	CR-V 2.4 V-Tec DOHC ( K24 2002-up )	5.984"	2.008"	.780"	.866" (22mm)	.8671"	610
14417-4	<b>14417R6-4</b>	Prelude 2.2 V-Tec DOHC (H22 1992-up)	5.636"	2.008"	.935"	.866" (22mm)	.8671"	570
<b>HYUNDAI</b>								
14410-4	<b>14410R6-4</b>	Genesis Coupe 2.0L Turbo Theta I4	5.753"	2.008"	.860"	.866" (22mm)	.8671"	630
<b>LAMBORGHINI</b>								
14435-10	<b>14435R6-10</b>	Lamborghini Gallardo/Hurac�n 5.2L FSI (2008-up)	6.063"	2.236"	.764"	.787" (20mm)	.7881"	615

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

Note: New part numbers are **BOLD & ITALICIZED**

# STEEL CONNECTING RODS

## Mazda / Mitsubishi / Nissan

### Pro Series I-Beam Turbo Tuff® Rods



- ▶ Forged from 4340 aircraft quality vacuum degassed material (P/N's 15403, 15424, 15444 and 15524 are made from 300M alloy)
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Specifically designed to handle high horsepower applications when using turbos and/or nitrous
- ▶ Fasteners are 3/8" except P/N's 14424, 14428, 15424, 15444 and 15524 are supplied with 7/16" fasteners
- ▶ Flywheel horsepower range for these 4340 rods in a 4 cylinder application is 1,000+ and for a 6 cylinder application the range is 1,250+
- ▶ Flywheel horsepower range for these 300M rods in a 4 cylinder application is 1,400+ and for a 6 cylinder application the range is 1,600+ (15424) and 2,000+ (15444/15524)

ARP 2000 Part No.	ARP 625+ Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
<b>MAZDA</b>								
14430-4	14430R6-4	Mazda Speed 3 MZR 2.3L DISI Turbo	5.927"	2.166"	.859"	.866" (22mm)	.8671"	605
14432-4	14432R6-4	Mazda Speed 3 MZR 2.3L DISI Turbo	5.927"	2.166"	.859"	.886" (22.5mm)	.8868"	600
<b>MITSUBISHI</b>								
14413-4	14413R6-4	Eclipse GS, GST, GSX & Eagle Talon TSi 2.0 (6 Bolt 4G63, 4G63T 1990-1993.5 )	5.905"	1.890"	1.115"	.827" (21mm)	.8281"	650
14407-4	14407R6-4	Eclipse GS, GST, GSX & Eagle Talon TSi 2.0 (6 Bolt 4G63, 4G63T 1990-1993.5 )	5.905"	1.890"	1.115"	.866" (22mm)	.8671"	645
14426-4	14426R6-4	Eclipse GS, GST, GSX & Eagle Talon TSi 2.0 (6 Bolt 4G63, 4G63T 1990-1993.5 )	6.142" .237" / 6mm Longer	1.890"	1.115"	.866" (22mm)	.8671"	660
14403-4	14403R6-4	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999 ) Evolution VIII, IX (4G63T 2003-2006)	5.905"	1.890"	1.038"	.866" (22mm)	.8671"	630
15403-4	15403R6-4	Same as the 14403 except made from 300M alloy	5.905"	1.890"	1.038"	.866" (22mm)	.8671"	675
14400-4	14400R6-4	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999 ) Evolution VIII, IX (4G63T 2003-2006) Stroker, lighter weight straight beam design.	5.905"	1.890"	1.038"	.866" (22mm)	.8671"	625
14421-4	14421R6-4	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999 ) Evolution VIII, IX (4G63T 2003-2006)	6.142" .237" / 6mm Longer	1.890"	1.038"	.866" (22mm)	.8671"	645
14422-4	14422R6-4	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999 ) Evolution VIII, IX (4G63T 2003-2006)	6.378" .473" / 12mm Longer	1.890"	1.038"	.866" (22mm)	.8671"	655
14409-4	14409R6-4	EVO X 4B11T (2008-Up)	5.656"	2.165"	.860"	.9055" (23mm)	.9063"	630
<b>NISSAN</b>								
14408-4	14408R6-4	2.0 SR20DE, SR20DET (1991-2002)	5.365"	2.008"	.900"	.866" (22mm)	.8671"	600
14401-4	14401R6-4	KA24E (1989-1990), KA24DE (1991-1998), 240SX	6.495"	2.086"	.973"	.827" (21mm)	.8281"	630
14429-6	14429R6-6	Patrol 4.8 TB48	6.435"	2.362"	1.290"	.9055" (23mm)	.9063"	800
14411-6	14411R6-6	RB25DE(T), RB26DETT (Stock 21mm pin)	4.783"	2.008"	.857"	.827" (21mm)	.8281"	565
14418-6	14418R6-6	RB25DE(T), RB26DETT (22mm pin)	4.783"	2.008"	.857"	.866" (22mm)	.8671"	565
14428-6	14428R6-6	RB30E/T	5.995"	2.087"	.856"	.827" (21mm)	.8281"	630
14406-6	14406R6-6	VQ35DE(T) (2002-Up Altima/Maxima and 2003-Up 350Z)	5.680"	2.165"	.820"	.866" (22mm)	.8671"	590
14437-6	-----	VR30DDTT (2016-Up)	5.975"	2.244"	.818"	.9055" (23mm)	.9063"	640
14424-6	-----	GT-R 3.8 VR38DETT*	6.500"	2.323"	.897"	.9055" (23mm)	.9063"	740
15424-6	-----	GT-R 3.8 VR38DETT 300M alloy Lightweight design*	6.500"	2.323"	.897"	.9055" (23mm)	.9063"	730
15524-6	-----	GT-R 3.8 VR38DETT 300M alloy Heavyweight design	6.500"	2.323"	.897"	.9055" (23mm)	.9063"	815
15444-6	-----	GT-R 3.8 VR38DETT 300M alloy (.990" pin)	6.500"	2.323"	.897"	.990"	.9911"	760

\* 14424 and 15424 are drop in designs - no balancing required when using stock crank/piston

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

# STEEL CONNECTING RODS

## Renault / Subaru / Toyota

### Pro Series I-Beam Turbo Tuff® Rods

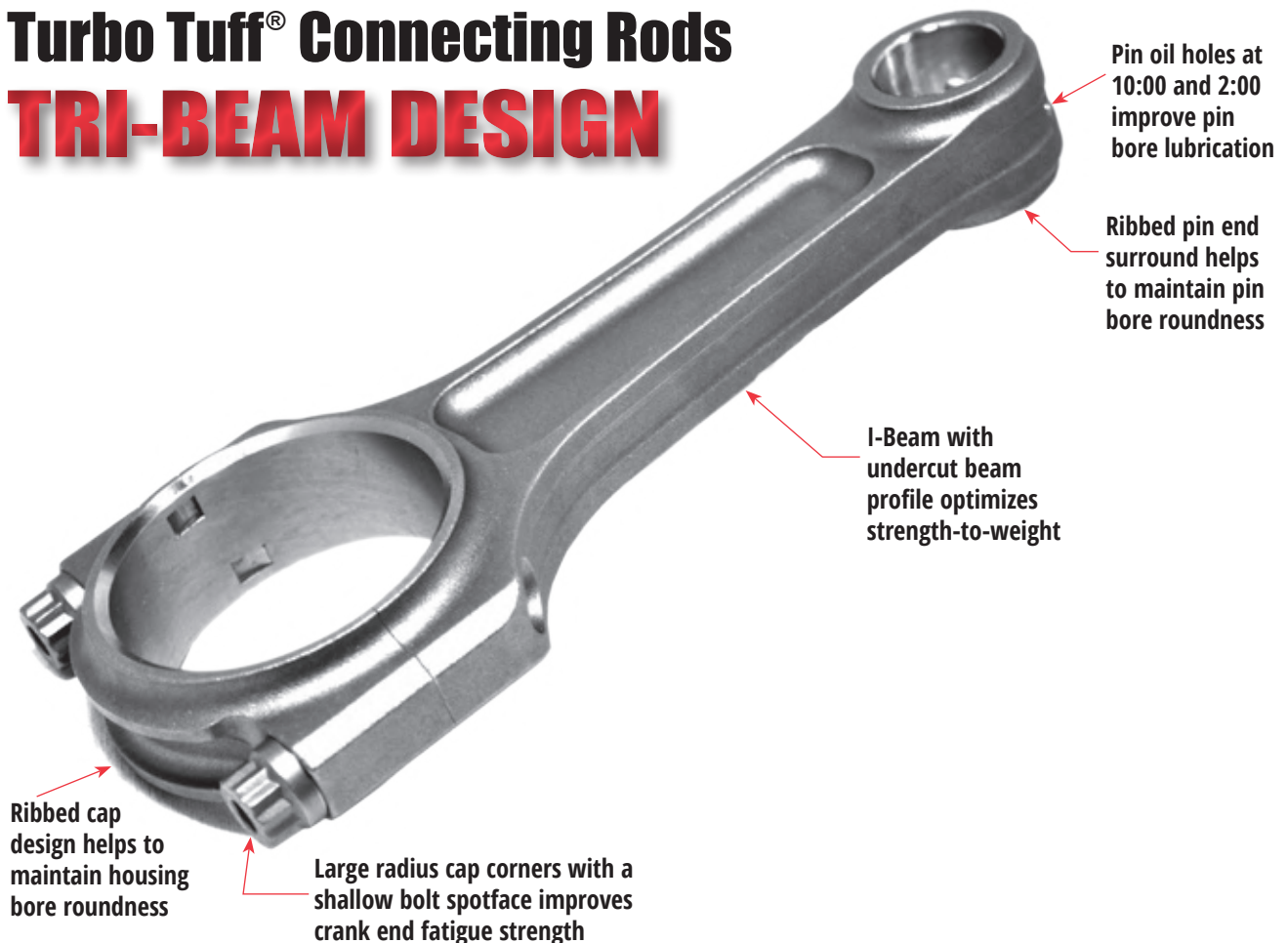
- ▶ Forged from 4340 aircraft quality vacuum degassed material
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Specifically designed to handle high horsepower applications when using turbos and/or nitrous
- ▶ Fasteners are 3/8"
- ▶ Flywheel horsepower range for these rods in a 4 cylinder application is 1,000+, for a 6 cylinder application the range is 1,250+ and for a 8 cylinder application the range is 1,500+



ARP 2000 Part No.	ARP 625+ Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
<b>RENAULT</b>								
<b>14423-4</b>	<b>14423R6-4</b>	Megane, Clio	5.669"	2.031"	.984"	.827" (21mm)	.8278"	615
<b>SUBARU</b>								
<b>14431-4</b>	<b>14431R6-4</b>	FA20 BRZ 2.0L 2013-Up/WRX 2015-Up	5.090"	2.087"	.843"	.866" (22mm)	.8671"	560
<b>14416-4</b>	<b>14416R6-4</b>	WRX EJ205/STi EJ257	5.137"	2.165"	.840"	.9055" (23mm)	.9063"	560
<b>14436-4</b>	<b>14436R6-4</b>	WRX EJ205/STi EJ257	5.216"	2.165"	.840"	.9055" (23mm)	.9063"	560
			.079" / 2mm Longer					
<b>TOYOTA</b>								
<b>14431-4</b>	<b>14431R6-4</b>	Scion FR-S 2.0L	5.090"	2.087"	.843"	.866" (22mm)	.8671"	560
<b>14419-4</b>	<b>14419R6-4</b>	Scion 2.4 2AZFE	5.886"	2.008"	.784"	.866" (22mm)	.8671"	570
<b>14402-6</b>	<b>14402R6-6</b>	Supra 3.0 2JZG (1993-1998)	5.590"	2.167"	1.015"	.866" (22mm)	.8671"	645
<b>14425-8</b>	<b>14425R6-8</b>	3UR-FE 5.7L (2007-up)	6.476"	2.323"	.820"	.866" (22mm)	.8671"	675

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

## Turbo Tuff® Connecting Rods TRI-BEAM DESIGN



CONNECTING RODS

Note: New part numbers are **BOLD & ITALICIZED**

# STEEL CONNECTING RODS

## H-Beam, H-Tuff & H-Tuff Plus Rods

### Replacement Bolts and Specifications

Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ 30wt. Oil	Recommended Bolt Stretch w/ 30wt. Oil	Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ ARP Lube	Recommended Bolt Stretch w/ ARP Lube
14000	42351-1	65 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14001	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14002	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14003	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14004	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14005	42351-1	65 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14006	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14007	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14008	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14009	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14010	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14011	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14012	42351-1	65 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14013	42351-1	65 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14014	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14015	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14016	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14017	42354-1	95 ft./lbs.	.0050"-.0054"	-----	-----	-----	-----
14017R	42390-1	90 ft./lbs.	.0050"-.0060"	-----	-----	-----	-----
14018	42354-1	95 ft./lbs.	.0050"-.0054"	-----	-----	-----	-----
14018R	42390-1	90 ft./lbs.	.0050"-.0060"	-----	-----	-----	-----
14019	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14020	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14021	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14022	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14023	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14024	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14025	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14026	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14027	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14028	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14029	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14030	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14032	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14078	42351-1	65 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14079	42351-1	65 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14080	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
15020	42350-1	60 ft./lbs.	.0058"-.0062"	15020R6	42320-1	65 ft./lbs.	.0063"-.0067"
15020	42350-1	60 ft./lbs.	.0058"-.0062"	15020R6	42320-1	65 ft./lbs.	.0063"-.0067"
15022	42350-1	60 ft./lbs.	.0058"-.0062"	15022R6	42320-1	65 ft./lbs.	.0063"-.0067"
15024	42350-1	60 ft./lbs.	.0058"-.0062"	15024R6	42320-1	65 ft./lbs.	.0063"-.0067"
15027	42350-1	60 ft./lbs.	.0058"-.0062"	15027R6	42320-1	65 ft./lbs.	.0063"-.0067"
15029	42350-1	60 ft./lbs.	.0058"-.0062"	15029R6	42320-1	65 ft./lbs.	.0063"-.0067"
15032	42350-1	60 ft./lbs.	.0058"-.0062"	15032R6	42320-1	65 ft./lbs.	.0063"-.0067"
15036	42350-1	60 ft./lbs.	.0058"-.0062"	15036R6	42320-1	65 ft./lbs.	.0063"-.0067"
15084	42350-1	60 ft./lbs.	.0058"-.0062"	15084R6	42320-1	65 ft./lbs.	.0063"-.0067"

CONNECTING RODS

ARP Lube Part No.	Quantity	Description
40170	1/2 oz.	ARP Ultra-Torque® Fastener Assembly Lube

#### Important excerpt from the ARP catalog regarding proper fastener installation:

“The importance of tightening fasteners to their required preload cannot be emphasized enough. If a fastener is not tightened properly, the fastener will not apply the required preload on the application it is being used for and may become susceptible to failure. Conversely, if a fastener is over tightened and stretched too much, it becomes susceptible to failure by exceeding it's maximum yield point.”



Manley Performance uses ARP connecting rod bolts exclusively and is proud to be an ARP “Performance Partner.”





# STEEL CONNECTING RODS

## Pro Series Turbo Tuff® I-Beam

### Replacement Bolts and Specifications

Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ ARP Lube	Recommended Bolt Stretch w/ ARP Lube	Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ ARP Lube	Recommended Bolt Stretch w/ ARP Lube
14400	42350-1	60 ft./lbs.	.0058"-.0062"	14400R6	42320-1	60 ft./lbs.	.0063"-.0067"
14401	42351-1	60 ft./lbs.	.0058"-.0062"	14401R6	42321-1	65 ft./lbs.	.0065"-.0075"
14402	42351-1	60 ft./lbs.	.0058"-.0062"	14402R6	42321-1	65 ft./lbs.	.0065"-.0075"
14402	42351-1	60 ft./lbs.	.0058"-.0062"	14402R6	42321-1	65 ft./lbs.	.0065"-.0075"
14403	42351-1	60 ft./lbs.	.0058"-.0062"	14403R6	42321-1	65 ft./lbs.	.0065"-.0075"
14404	42351-1	60 ft./lbs.	.0058"-.0062"	14404R6	42321-1	65 ft./lbs.	.0065"-.0075"
14405	42351-1	60 ft./lbs.	.0058"-.0062"	14405R6	42321-1	65 ft./lbs.	.0065"-.0075"
14406	42350-1	60 ft./lbs.	.0058"-.0062"	14406R6	42320-1	60 ft./lbs.	.0063"-.0067"
14407	42351-1	60 ft./lbs.	.0058"-.0062"	14407R6	42321-1	65 ft./lbs.	.0065"-.0075"
14408	42351-1	60 ft./lbs.	.0058"-.0062"	14408R6	42321-1	65 ft./lbs.	.0065"-.0075"
14409	42350-1	60 ft./lbs.	.0058"-.0062"	14409R6	42320-1	60 ft./lbs.	.0063"-.0067"
14410	42350-1	60 ft./lbs.	.0058"-.0062"	14410R6	42320-1	60 ft./lbs.	.0063"-.0067"
14411	42351-1	60 ft./lbs.	.0058"-.0062"	14411R6	42321-1	65 ft./lbs.	.0065"-.0075"
14412	42351-1	60 ft./lbs.	.0058"-.0062"	14412R6	42321-1	65 ft./lbs.	.0065"-.0075"
14413	42351-1	60 ft./lbs.	.0058"-.0062"	14413R6	42321-1	65 ft./lbs.	.0065"-.0075"
14414	42351-1	60 ft./lbs.	.0058"-.0062"	14414R6	42321-1	65 ft./lbs.	.0065"-.0075"
14415	42351-1	60 ft./lbs.	.0058"-.0062"	14415R6	42321-1	65 ft./lbs.	.0065"-.0075"
14416	42351-1	60 ft./lbs.	.0058"-.0062"	14416R6	42321-1	65 ft./lbs.	.0065"-.0075"
14417	42351-1	60 ft./lbs.	.0058"-.0062"	14417R6	42321-1	65 ft./lbs.	.0065"-.0075"
14418	42351-1	60 ft./lbs.	.0058"-.0062"	14418R6	42321-1	65 ft./lbs.	.0065"-.0075"
14419	42351-1	60 ft./lbs.	.0058"-.0062"	14419R6	42321-1	65 ft./lbs.	.0065"-.0075"
14420	42351-1	60 ft./lbs.	.0058"-.0062"	14420R6	42321-1	65 ft./lbs.	.0065"-.0075"
14421	42351-1	60 ft./lbs.	.0058"-.0062"	14421R6	42321-1	65 ft./lbs.	.0065"-.0075"
14422	42351-1	60 ft./lbs.	.0058"-.0062"	14422R6	42321-1	65 ft./lbs.	.0065"-.0075"
14423	42350-1	60 ft./lbs.	.0058"-.0062"	14423R6	42320-1	60 ft./lbs.	.0063"-.0067"
14424	42384-1	100 ft./lbs.	.0064"-.0068"	-----	-----	-----	-----
14425	42384-1	100 ft./lbs.	.0064"-.0068"	-----	-----	-----	-----
14426	42351-1	60 ft./lbs.	.0058"-.0062"	14426R6	42321-1	65 ft./lbs.	.0065"-.0075"
14427	42390-1	80 ft./lbs.	.0050"-.0060"	14427R6	42252-1	105 ft./lbs.	.0060"-.0065"
14428	42390-1	80 ft./lbs.	.0050"-.0060"	14428R6	42252-1	105 ft./lbs.	.0060"-.0065"
14429	42351-1	60 ft./lbs.	.0058"-.0062"	14429R6	42321-1	65 ft./lbs.	.0065"-.0075"
14430	42350-1	60 ft./lbs.	.0058"-.0062"	14430R6	42320-1	60 ft./lbs.	.0063"-.0067"
14431	42350-1	60 ft./lbs.	.0058"-.0062"	14431R6	42320-1	60 ft./lbs.	.0063"-.0067"
14432	42350-1	60 ft./lbs.	.0058"-.0062"	14432R6	42320-1	60 ft./lbs.	.0063"-.0067"
14433	42350-1	60 ft./lbs.	.0058"-.0062"	14433R6	42320-1	60 ft./lbs.	.0063"-.0067"
14434	42350-1	60 ft./lbs.	.0058"-.0062"	14434R6	42320-1	60 ft./lbs.	.0063"-.0067"
14435	42351-1	60 ft./lbs.	.0058"-.0062"	14435R6	42321-1	65 ft./lbs.	.0065"-.0075"
14436	42351-1	60 ft./lbs.	.0058"-.0062"	14436R6	42321-1	65 ft./lbs.	.0065"-.0075"
14437	42351-1	60 ft./lbs.	.0058"-.0062"	14437R6	42321-1	65 ft./lbs.	.0065"-.0075"
14448	42351-1	60 ft./lbs.	.0058"-.0062"	14448R6	42321-1	65 ft./lbs.	.0065"-.0075"
14449	42351-1	60 ft./lbs.	.0058"-.0062"	14448R6	42321-1	65 ft./lbs.	.0065"-.0075"
15403	42351-1	60 ft./lbs.	.0058"-.0062"	15403R6	42321-1	65 ft./lbs.	.0065"-.0075"
15424	42384-1	100 ft./lbs.	.0064"-.0068"	-----	-----	-----	-----
15444	42384-1	100 ft./lbs.	.0064"-.0068"	-----	-----	-----	-----
15524	42384-1	100 ft./lbs.	.0064"-.0068"	-----	-----	-----	-----
15527	42390-1	80 ft./lbs.	.0050"-.0060"	15527R6	42252-1	105 ft./lbs.	.0060"-.0065"

CONNECTING RODS

ARP Lube Part No.	Quantity	Description
40170	1/2 oz.	ARP Ultra-Torque® Fastener Assembly Lube



# STEEL CONNECTING RODS

## Pin Bushings

► Premium AMPCO 18 material

Part No.	O.D.	I.D.	O/A Length
42221S-1	0.860	0.775	0.975
42221-1	0.860	0.784	0.975
42186S-1	0.930	0.815	0.965
42285S-1	0.904	0.820	0.845
42303S-1	0.910	0.820	1.015
42285-1	0.904	0.828	0.845
42303-1	0.910	0.828	1.015
42186-1	0.930	0.828	0.965
42261S-1	0.924	0.850	0.845
42052S-1	0.930	0.855	0.840
42050S-1	0.930	0.855	1.010
42039S-1	0.894	0.856	1.015
42183S-1	0.910	0.856	0.950
42319S-1	0.930	0.856	0.775
42345S-1	0.990	0.856	0.995
42323S-1	0.910	0.860	1.010
42261-1	0.924	0.860	0.845
42039-1	0.894	0.866	1.015

Part No.	O.D.	I.D.	O/A Length
42183-1	0.910	0.866	0.950
42323-1	0.910	0.866	1.010
42319-1	0.930	0.866	0.775
42052-1	0.930	0.866	0.840
42050-1	0.930	0.866	1.010
42345-1	0.990	0.866	0.995
42314S-1	0.979	0.896	0.995
42309S-1	0.964	0.900	0.835
42051S-1	0.964	0.900	0.855
42057S-1	0.979	0.900	0.815
42059S-1	0.990	0.900	0.835
42314-1	0.979	0.906	0.995
42309-1	0.964	0.908	0.835
42051-1	0.964	0.908	0.855
42057-1	0.979	0.908	0.815
42059-1	0.990	0.908	0.835
42028S-1	1.100	1.015	0.835
42028-1	1.100	1.026	0.835

## Connecting Rod Bolts

Part No.	Diameter	Under Head Length	Material
42350-1	3/8"	1.500"	ARP 2000
42320-1	3/8"	1.500"	ARP 625+
42351-1	3/8"	1.600"	ARP 2000
42321-1	3/8"	1.600"	ARP 625+
42354-1	7/16"	1.450"	ARP 8740
42390-1	7/16"	1.450"	ARP 2000
42252-1	7/16"	1.450"	ARP 625+
42384-1	7/16"	1.650"	ARP 2000

## Dowel Bushings

Part No.	O.D.	I.D.	O/A Length
42048-1	.4250"	.3860"	.536"
42385-1	.4390"	.3860"	.815"
42382-1	.4390"	.3860"	.860"
42380-1	.4390"	.3860"	.900"
42049-1	.5000"	.4440"	.536"
42352-1	.5020"	.4485"	.820"
42392-1	.5020"	.4485"	.855"

# Manufacturing Processes



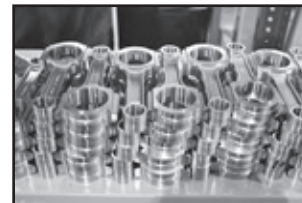
Bore & Profile



Bore & Profile



Post Bore & Profile



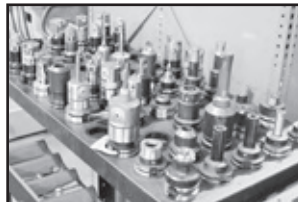
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Drill & Tap



Final Bore



CNC Tooling



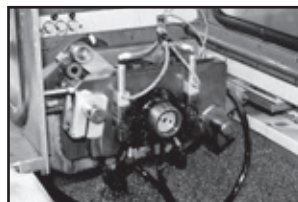
Rod Detailing



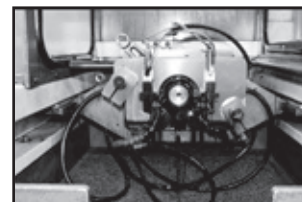
Shot Peen



Magnaflux



Sunnen® H-Beam Cross Grinding



Sunnen® I-Beam Cross Grinding



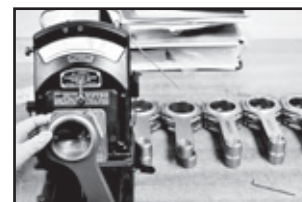
Post Cross Grind



Sunnen® Pin Honing



Bushing Chamfering



Sunnen® Precision Gauging

CONNECTING RODS

## Mitsubishi 4G63/4G64 7 Bolt Crankshafts

### Forged "Race Series" For Street / Strip

- ▶ Premium heat treated forgings
- ▶ Better performance at high RPM
- ▶ Stress relieved & shot peened
- ▶ Nitrided
- ▶ 100% Magnafluxed



Forged Part No.	Stroke	Weight
190100	88mm	33.5 lbs
190120	100mm	37 lbs

### Fully Machined "Turbo Tuff® Series" Billet For High Horsepower / High Boosted Applications

- ▶ 4340 Billet
- ▶ Multi-step heat treatment process
- ▶ Stress relieved and shot peened
- ▶ Nitrided
- ▶ 100% Magnafluxed
- ▶ Knife-edged counterweights



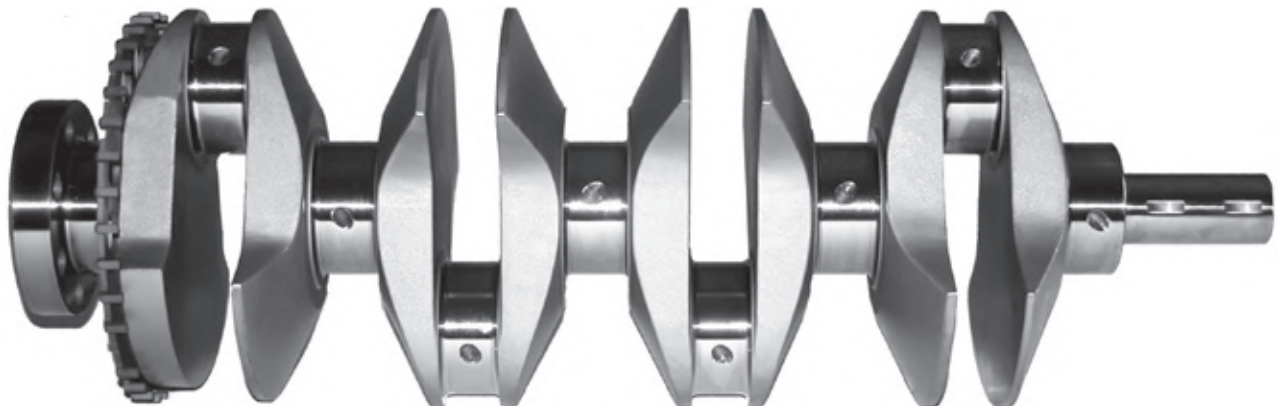
Billet Part No.	Stroke	Weight
190100B	88mm	32 lbs
190110B	94mm	32.5 lbs
190120B	100mm	33.5 lbs
190120BSLW	100mm	29.5 lbs

## Mitsubishi 4B11T Evo X Stroker Crankshafts

### Fully Machined "Turbo Tuff® Series" Billet For High Horsepower / High Boosted Applications

- ▶ 4340 Billet
- ▶ Multi-step heat treatment process
- ▶ Stress relieved and shot peened
- ▶ Nitrided
- ▶ 100% Magnafluxed
- ▶ Knife-edged counterweights

Billet Part No.	Stroke	Weight
190230B	94mm	37 lbs



# CUSTOM ROTATING ASSEMBLIES

Ordering a Manley Mitsubishi Rotating Assembly is as easy as 1-2-3....

1. Choose your crankshaft part number based on stroke and style either Forged Race Series or Turbo Tuff® Billet and order the corresponding rod and main bearing part numbers shown.
2. Choose your connecting rod part number.
3. Choose your piston part number based on desired bore size and compression ratio (piston pins, locks and rings are included).

Ordering all of the required components for your rotating assembly from Manley will result in extra \$ savings. Please contact your Manley representative for more details.

## CRANKS

- ▶ Premium heat treated forgings or lightweight 4340 billet
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Fully profiled knife-edged counterweights on the billet forgings

## RODS

- ▶ 4340 material forgings or aircraft quality 300M alloy for extreme boost
- ▶ Fully machined, heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Big and small end bores are final honed to a tolerance of ± .0002"
- ▶ Bend and twist is tightly controlled
- ▶ Weight matched to +/- 1.5 grams
- ▶ H-Beam/H-Tuff comes standard with 3/8" ARP 2000 bolts
- ▶ H-Tuff Plus comes standard with 3/8" ARP 625+ bolts
- ▶ I-Beam and 300M comes standard with 3/8" ARP 2000 bolts (affix an R6 suffix for ARP 625+ bolt upgrade)

## PISTONS

- ▶ High strength 2618 alloy forgings
- ▶ Exacting ring groove squareness to cylinder wall provides maximum horsepower
- ▶ Offset wrist pin design
- ▶ Premium Chrome Moly pin included with Standard Series
- ▶ 9310 Alloy pin included with Extreme Duty/Turbo Tuff® Series
- ▶ Moly coated skirts

## RINGS

- ▶ 1.2 x 1.2 x 2.8mm
- ▶ Total Seal steel tops and Napier 2nds standard
- ▶ Rings included in piston kits

## BEARINGS

- ▶ Premium ACL Race Series with narrowed rod bearings

## Mitsubishi 4G63 7 Bolt Std Stroke Series 2.0L

Forged "Race Series" & "Turbo Tuff®" Billet 88mm Stroke Crank w/150mm Rods

Crank P/N Type	Rod P/N Description	Standard Piston P/N	Extreme Duty P/N	Turbo Tuff® P/N	Piston Description	Compression Ratio 47cc DSM 43cc EVO	
190100 Forged or 190100B Billet	14022-4 150mm H-Beam or 15022-4 150mm H-Tuff	606000C-4	606000CE-4	606300CE-4	85mm/-12cc Dish	8.5	9.0
		606005C-4	606005CE-4	606305CE-4	85.5mm/-12cc Dish	8.5	9.0
Bearing P/N Description	15022R6-4 150mm H-Tuff Plus or 14400-4 150mm LW I-Beam or 14403-4 150mm TT I-Beam or 15403-4 150mm 300M I-Beam	606010C-4	606010CE-4	606310CE-4	86mm/-12cc Dish	8.5	9.0
		606015C-4	606015CE-4	-----	86.5mm/-12cc Dish	8.5	9.0
30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	15022R6-4 150mm H-Tuff Plus or 14400-4 150mm LW I-Beam or 14403-4 150mm TT I-Beam or 15403-4 150mm 300M I-Beam	606020C-4	606020CE-4	-----	87mm/-12cc Dish	8.5	9.0
		606100C-4	606100CE-4	-----	85mm/-8cc Dish	9.0	9.5
30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	14403-4 150mm TT I-Beam or 15403-4 150mm 300M I-Beam	606105C-4	606105CE-4	-----	85.5mm/-8cc Dish	9.0	9.5
		606110C-4	606110CE-4	-----	86mm/-8cc Dish	9.0	9.5
30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	14403-4 150mm TT I-Beam or 15403-4 150mm 300M I-Beam	606115C-4	606115CE-4	-----	86.5mm/-8cc Dish	9.0	9.5
		606120C-4	606120CE-4	-----	87mm/-8cc Dish	9.0	9.5
30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	14403-4 150mm TT I-Beam or 15403-4 150mm 300M I-Beam	606200C-4	606200CE-4	606400CE-4	85mm/-2.5cc Flat Top	10.0	10.5
		606205C-4	606205CE-4	606405CE-4	85.5mm/-2.5cc Flat Top	10.0	10.5
30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	14403-4 150mm TT I-Beam or 15403-4 150mm 300M I-Beam	606210C-4	606210CE-4	606410CE-4	86mm/-2.5cc Flat Top	10.0	10.5
		606215C-4	606215CE-4	-----	86.5mm/-2.5cc Flat Top	10.0	10.5
30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	15403-4 150mm 300M I-Beam	606220C-4	606220CE-4	-----	87mm/-2.5cc Flat Top	10.0	10.5

## Mitsubishi 4G63 7 Bolt Std Stroke Series 2.0L

Forged "Race Series" & "Turbo Tuff®" Billet 88mm Stroke Crank w/156mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Compression Ratio 47cc DSM 43cc EVO	
190100 Forged or 190100B Billet	14020-4 156mm H-Beam or 15020-4 156mm H-Tuff	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	617000C-4	617000CE-4	85mm/-12cc Dish	8.5	9.0
			617005C-4	617005CE-4	85.5mm/-12cc Dish	8.5	9.0
190100B Billet	15020-4 156mm H-Tuff or 15020R6-4 156mm H-Tuff Plus or 14421-4 156mm TT I-Beam	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	617010C-4	617010CE-4	86mm/-12cc Dish	8.5	9.0
			617015C-4	617015CE-4	86.5mm/-12cc Dish	8.5	9.0
190100B Billet	15020-4 156mm H-Tuff or 15020R6-4 156mm H-Tuff Plus or 14421-4 156mm TT I-Beam	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	617020C-4	617020CE-4	87mm/-12cc Dish	8.5	9.0

Note: "LW" = "Lightweight" design rod and "TT" = "Turbo Tuff®" design rod



# CUSTOM ROTATING ASSEMBLIES

## Mitsubishi 4G63 7 Bolt Stroker Series 2.1L

### "Turbo Tuff®" Billet 94mm Stroke Cranks w/ 150mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston		Piston Description	Compression Ratio	
			P/N	Extreme Duty P/N		47cc DSM	43cc EVO
190110B Billet	14022-4 150mm H-Beam or	30060 Rod &	618000C-4	618000CE-4	85mm/-17cc Dish	8.5	9.0
			618005C-4	618005CE-4	85.5mm/-17cc Dish	8.5	9.0
	15022-4 150mm H-Tuff or	33060 Mains Only or	618010C-4	618010CE-4	86mm/-17cc Dish	8.5	9.0
			618015C-4	618015CE-4	86.5mm/-17cc Dish	8.5	9.0
	15022R6-4 150mm H-Tuff Plus or	33060T Mains w/ Thrusts	618020C-4	618020CE-4	87mm/-17cc Dish	8.5	9.0
			618200C-4	618200CE-4	85mm/-8cc Dish	10.0	10.5
	14400-4 150mm LW I-Beam or		618205C-4	618205CE-4	85.5mm/-8cc Dish	10.0	10.5
			618210C-4	618210CE-4	86mm/-8cc Dish	10.0	10.5
	14403-4 150mm TT I-Beam or		618215C-4	618215CE-4	86.5mm/-8cc Dish	10.0	10.5
			618220C-4	618220CE-4	87mm/-8cc Dish	10.0	10.5
	15403-4 150mm 300M I-Beam						

## Mitsubishi 4G63 7 Bolt Stroker Series 2.1L

### "Turbo Tuff®" Billet 94mm Stroke Cranks w/ 156mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston		Piston Description	Compression Ratio	
			P/N	Extreme Duty P/N		47cc DSM	43cc EVO
190110B Billet	14020-4 156mm H-Beam or	30060 Rod &	619000C-4	619000CE-4	85mm/-17cc Dish	8.5	9.0
			619005C-4	619005CE-4	85.5mm/-17cc Dish	8.5	9.0
	15020-4 156mm H-Tuff or	33060 Mains Only or	619010C-4	619010CE-4	86mm/-17cc Dish	8.5	9.0
			619015C-4	619015CE-4	86.5mm/-17cc Dish	8.5	9.0
	15020R6-4 156mm H-Tuff Plus or	33060T Mains w/ Thrusts	619020C-4	619020CE-4	87mm/-17cc Dish	8.5	9.0
			619200C-4	619200CE-4	85mm/-8cc Dish	10.0	10.5
	14421-4 156mm TT I-Beam		619205C-4	619205CE-4	85.5mm/-8cc Dish	10.0	10.5
			619210C-4	619210CE-4	86mm/-8cc Dish	10.0	10.5
			619215C-4	619215CE-4	86.5mm/-8cc Dish	10.0	10.5
			619220C-4	619220CE-4	87mm/-8cc Dish	10.0	10.5

## Mitsubishi 4G63 7 Bolt Stroker Series 2.3L

### Forged "Race Series" & "Turbo Tuff®" Billet 100mm Stroke Cranks w/ 150mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston		Piston Description	Compression Ratio	
			P/N	Extreme Duty P/N		47cc DSM	43cc EVO
190120 Forged or	14022-4 150mm H-Beam or	30060 Rod &	608000C-4	608000CE-4	85mm/-22cc Dish	8.5	9.0
			608005C-4	608005CE-4	85.5mm/-22cc Dish	8.5	9.0
190120B Billet or	15022-4 150mm H-Tuff or	33060 Mains Only or	608010C-4	608010CE-4	86mm/-22cc Dish	8.5	9.0
			608015C-4	608015CE-4	86.5mm/-22cc Dish	8.5	9.0
190120BSLW Billet Super Lightweight	15022R6-4 150mm H-Tuff Plus or	33060T Mains w/ Thrusts	608020C-4	608020CE-4	87mm/-22cc Dish	8.5	9.0
			617000C-4	617000CE-4	85mm/-12cc Dish	10.0	10.5
	14400-4 150mm LW I-Beam or		617005C-4	617005CE-4	85.5mm/-12cc Dish	10.0	10.5
			617010C-4	617010CE-4	86mm/-12cc Dish	10.0	10.5
	14403-4 150mm TT I-Beam or		617015C-4	617015CE-4	86.5mm/-12cc Dish	10.0	10.5
			617020C-4	617020CE-4	87mm/-12cc Dish	10.0	10.5
	15403-4 150mm 300M I-Beam						

Note: "LW" = "Lightweight" design rod and "TT" = "Turbo Tuff®" design rod

# CUSTOM ROTATING ASSEMBLIES

## Mitsubishi 4G64 7 Bolt De-Stroke Series 2.1L

Forged "Race Series" & "Turbo Tuff®" Billet 88mm Stroke Crank w/ 156mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Piston		Piston Description	Compression Ratio	
			Standard P/N	Extreme Duty P/N		47cc DSM	43cc EVO
190100 Forged or 190100B Billet	14020-4 156mm H-Beam or	30060 Rod &	606015C-4	606015CE-4	86.5mm/-12cc Dish	8.5	9.0
			606020C-4	606020CE-4	87mm/-12cc Dish	8.5	9.0
	15020-4 156mm H-Tuff or	33060 Mains Only or	606115C-4	606115CE-4	86.5mm/-8cc Dish	9.0	9.5
			606120C-4	606120CE-4	87mm/-8cc Dish	9.0	9.5
	15020R6-4 156mm H-Tuff Plus or	33060T Mains w/ Thrusts	606215C-4	606215CE-4	86.5mm/-2.5cc Flat Top	10.0	10.5
			606220C-4	606220CE-4	87mm/-2.5cc Flat Top	10.0	10.5
14421-4 156mm TT I-Beam							

## Mitsubishi 4G64 7 Bolt De-Stroke Series 2.1L

Forged "Race Series" & "Turbo Tuff®" Billet 88mm Stroke Crank w/ 162mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Piston		Piston Description	Compression Ratio	
			Standard P/N	Extreme Duty P/N		47cc DSM	43cc EVO
190100 Forged or 190100B Billet	14422-4 162mm TT I-Beam	30060 Rod &	617015C-4	617015CE-4	86.5mm/-12cc Dish	8.5	9.0
			617020C-4	617020CE-4	87mm/-12cc Dish	8.5	9.0
		33060 Mains Only or					
		33060T Mains w/ Thrusts					

## Mitsubishi 4G64 7 Bolt De-Stroke Series 2.2L

"Turbo Tuff®" Billet 94mm Stroke Crank w/ 156mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Piston		Piston Description	Compression Ratio		
			Standard P/N	Extreme Duty P/N		47cc DSM	43cc EVO	
190110B Billet	14020-4 156mm H-Beam or	30060 Rod &	618015C-4	618015CE-4	86.5mm/-17cc Dish	8.5	9.0	
			618020C-4	618020CE-4	87mm/-17cc Dish	8.5	9.0	
	15020-4 156mm H-Tuff or	33060 Mains Only or	618215C-4	618215CE-4	86.5mm/-8cc Dish	10.0	10.5	
			618220C-4	618220CE-4	87mm/-8cc Dish	10.0	10.5	
	15020R6-4 156mm H-Tuff Plus or	33060T Mains w/ Thrusts						
			14421-4 156mm TT I-Beam					

## Mitsubishi 4G64 7 Bolt De-Stroke Series 2.2L

"Turbo Tuff®" Billet 94mm Stroke Crank w/ 162mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Piston		Piston Description	Compression Ratio	
			Standard P/N	Extreme Duty P/N		47cc DSM	43cc EVO
190110B Billet	14422-4 162mm TT I-Beam	30060 Rod &	619015C-4	619015CE-4	86.5mm/-17cc Dish	8.5	9.0
			619020C-4	619020CE-4	87mm/-17cc Dish	8.5	9.0
		33060 Mains Only or					
		33060T Mains w/ Thrusts					

Note: "TT" = "Turbo Tuff®" design rod

# CUSTOM ROTATING ASSEMBLIES

## Mitsubishi 4G64 7 Bolt Std Stroke Series 2.4L

Forged "Race Series" & "Turbo Tuff®" Billet 100mm Stroke Cranks w/ 150mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N		Piston Description	Compression Ratio	
			Standard Piston P/N	Extreme Duty P/N		47cc DSM	43cc EVO
190120 Forged or 190120B Billet or 190120BSLW Billet Super Lightweight	14022-4 150mm H-Beam or	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	613000C-4	613000CE-4	86.5mm/-23.5cc Dish	8.5	9.0
			613005C-4	613005CE-4	87mm/-23.5cc Dish	8.5	9.0
	15022-4 150mm H-Tuff or		606015C-4	606015CE-4	86.5mm/-12cc Dish	10.0	10.5
			606020C-4	606020CE-4	87mm/-12cc Dish	10.0	10.5
			15022R6-4 150mm H-Tuff Plus or	14400-4 150mm LW I-Beam or	14403-4 150mm TT I-Beam or	15403-4 150mm 300M I-Beam	

## Mitsubishi 4G64 7 Bolt Std Stroke Series 2.4L

Forged "Race Series" & "Turbo Tuff®" Billet 100mm Stroke Cranks w/ 156mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N		Piston Description	Compression Ratio	
			Standard Piston P/N	Extreme Duty P/N		47cc DSM	43cc EVO
190120 Forged or 190120B Billet or 190120BSLW Billet Super Lightweight	14020-4 156mm H-Beam or	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	608015C-4	608015CE-4	86.5mm/-22cc Dish	8.6	9.1
			608020C-4	608020CE-4	87mm/-22cc Dish	8.6	9.1
	15020-4 156mm H-Tuff or		617015C-4	617015CE-4	86.5mm/-12cc Dish	10.0	10.5
			617020C-4	617020CE-4	87mm/-12cc Dish	10.0	10.5
			15020R6-4 156mm H-Tuff Plus or	14421-4 156mm TT I-Beam			

## Mitsubishi 4B11T Evo X Stroker Series 2.2L

"Turbo Tuff®" Billet 94mm Stroke Cranks w/ 143.66mm Rods

Crank P/N Type	Rod P/N Description	Standard Piston P/N	Extreme Duty P/N	Turbo Tuff® P/N	Piston Description	Comp Ratio
						49cc
190230B Billet	14029-4 143.66mm H-Beam or	624000C-4	624000CE-4	624200CE-4	86mm/-11cc Dish	9.0
		624005C-4	624005CE-4	624205CE-4	86.5mm/-11cc Dish	9.0
Bearing P/N Description	15029-4 143.66mm H-Tuff or	624100C-4	624100CE-4	624300CE-4	86mm/-3.5cc Dish	10.0
30090 Rod & 33090 Mains Only or 33090T Mains w/ Thrusts	15029R6-4 143.66mm H-Tuff Plus or 14409-4 143.66mm TT I-Beam					

Note: "LW" = "Lightweight" design rod and "TT" = "Turbo Tuff®" design rod

Note: It is NOT necessary to remove factory oil squirters with Manley Evo X stroker kit

# CUSTOM ROTATING ASSEMBLIES

## Nissan RB26DETT Crankshafts

### Fully Machined "Turbo Tuff® Series" Billet For High Horsepower / High Boosted Applications

- ▶ 4340 Billet
- ▶ Multi-step heat treatment process
- ▶ Stress relieved and shot peened
- ▶ Nitrided
- ▶ 100% Magnafluxed
- ▶ Knife-edged counterweights



Part No.	Stroke	Weight
<b>190490B</b>	73.7mm	44 lbs
<b>190470B</b>	77.7mm	44 lbs

## Nissan RB26DETT Rotating Assemblies

Ordering a Manley Nissan RB26 Rotating Assembly is as easy as 1-2-3....

1. Choose your crankshaft part number based on stroke
2. Choose your connecting rod part number
3. Choose your piston part number based on desired bore size (piston pins, locks and rings are included)

Ordering all of the required components for your rotating assembly from Manley will result in extra savings. Please contact your Manley representative for more details

#### CRANK

- ▶ Premium heat treated 4340 billet
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stressed relieved, shot peened and 100% magnafluxed
- ▶ Fully profiled knife-edged counterweights

#### RODS

- ▶ 4340 material forgings for extreme boost
- ▶ Fully machined, heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Big and small end bores are final honed to a tolerance of  $\pm .0002"$
- ▶ Bend and twist is tightly controlled
- ▶ Weight matched to +/- 1.5 grams
- ▶ H-Beam comes standard with 3/8" ARP 2000 bolts
- ▶ I-Beam comes standard with 3/8" ARP 2000 bolts (affix an R6 suffix for ARP 625+ bolt upgrade)

#### PISTONS

- ▶ High strength 2618 alloy forgings
- ▶ Exact ring groove squareness to cylinder wall provides maximum horsepower
- ▶ Offset wrist pin design
- ▶ Premium Chrome Moly pin included with Standard Series
- ▶ 9310 Alloy pin included with Extreme Duty Series
- ▶ Moly coated skirts

#### RINGS

- ▶ 1.0 x 1.2 x 2.8mm
- ▶ NPR Premium Steel top rings with Napier second rings and 7-10 lb. tension oil rings included in piston kits

#### BEARINGS

- ▶ Premium ACL Race Series with narrowed rod bearings

### "Turbo Tuff®" Billet 73.7mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Compression Ratio 66.5cc
<b>190490B</b> Billet	<b>14028-6</b> 121.5mm H-Beam or	<b>30150</b> Rod &	<b>643002C-6</b>	<b>643102CE-6</b>	86.25mm/+20cc Dome	9.0
			<b>643005C-6</b>	<b>643105CE-6</b>	86.50mm/+20cc Dome	9.0
	<b>14411-6</b> 121.5mm TT I-Beam	<b>33150</b> Mains	<b>643007C-6</b>	<b>643107CE-6</b>	86.75mm/+20cc Dome	9.0
			<b>643010C-6</b>	<b>643110CE-6</b>	87.00mm/+20cc Dome	9.0

### "Turbo Tuff®" Billet 77.7mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Compression Ratio 66.5cc
<b>190470B</b> Billet	<b>14028-6</b> 121.5mm H-Beam or	<b>30150</b> Rod &	<b>643102C-6</b>	<b>643102CE-6</b>	86.25mm/+17cc Dome	9.0
			<b>643105C-6</b>	<b>643105CE-6</b>	86.50mm/+17cc Dome	9.0
	<b>14411-6</b> 121.5mm TT I-Beam	<b>33150</b> Mains	<b>643107C-6</b>	<b>643107CE-6</b>	86.75mm/+17cc Dome	9.0
			<b>643110C-6</b>	<b>643110CE-6</b>	87.00mm/+17cc Dome	9.0

Note: "TT" = "Turbo Tuff® design rod"

Note: New part numbers are **BOLD & ITALICIZED**

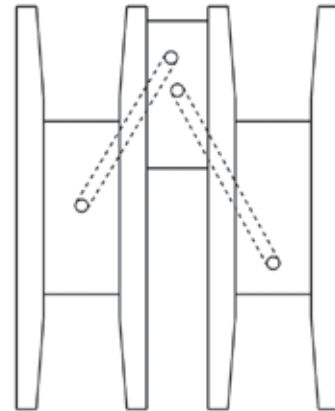


## Subaru EJ20/EJ25 Crankshafts

**Fully Machined "Turbo Tuff® Series"  
Billet For High Horsepower/High Boosted Applications**

- ▶ 4340 Billet
- ▶ Multi-step heat treatment process
- ▶ Stress relieved and shot peened
- ▶ Nitrided
- ▶ 100% Magnafluxed
- ▶ "Direct Shot" dual main priority rod journal oiling
- ▶ Gun drilled crank pin and counterweights

Part No.	Stroke	Weight
190160B	75mm	18 lbs
190040B	79mm	18 lbs
190060B	83mm	18 lbs



"Direct Shot" dual main priority rod journal oiling



Create your own "Bullet-Proof" Subaru Rotating Assemblies with Manley H-Beam, H-Tuff or Turbo Tuff® Connecting Rods and Manley Platinum Series Pistons on pages 50-52.

# CUSTOM ROTATING ASSEMBLIES

## Subaru EJ20/EJ25

Ordering a Manley Subaru Rotating Assembly is as easy as 1-2-3....

1. Choose your crankshaft part number based on stroke and order the corresponding rod and main bearing part numbers shown
2. Choose your connecting rod part number
3. Choose your piston part number based on desired bore size and compression ratio (piston pins, locks and rings are included)



Ordering all of the required components for your rotating assembly from Manley will result in extra \$ savings. Please contact your Manley representative for more details.

### CRANKS

- ▶ Premium heat treated lightweight 4340 billet
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Fully profiled counterweights on the billet forgings

### RODS

- ▶ 4340 material forgings for extreme boost
- ▶ Fully machined, heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Big and small end bores are final honed to a tolerance of  $\pm .0002$ "
- ▶ Bend and twist is tightly controlled
- ▶ Weight matched to +/- 1.5 grams
- ▶ H-Beam/H-Tuff comes standard with 3/8" ARP 2000 bolts
- ▶ H-Tuff Plus comes standard with 3/8" ARP 625+ bolts
- ▶ I-Beam comes standard with 3/8" ARP 2000 bolts (affix an R6 suffix for ARP 625+ bolt upgrade)

### PISTONS

- ▶ High strength 2618 alloy forgings
- ▶ Exacting ring groove squareness to cylinder wall provides maximum horsepower
- ▶ Offset wrist pin design
- ▶ Premium Chrome Moly pin included with Standard Series
- ▶ 9310 Alloy pin included with Extreme Duty Series
- ▶ Moly coated skirts

### RINGS

- ▶ 1.2 x 1.2 x 2.8mm EJ20
- ▶ 1.2 x 1.2 x 2.0mm EJ25
- ▶ Total Seal steel tops and Napier 2nds standard
- ▶ Rings included in piston kits

### BEARINGS

- ▶ Premium ACL Race Series with narrowed rod bearings
- ▶ Standard and "HX" clearance bearings are both available



IAG Global Time Attack

# CUSTOM ROTATING ASSEMBLIES

## Subaru EJ20 Std Stroke Series 2.0L

### "Turbo Tuff" Billet 75mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Comp Ratio 48cc
190160B Billet	14024-4 130.5mm H-Beam	30070 or 30070X* Rod &	615000C-4	615000CE-4	92mm/-12cc Dish	8.5
	15024-4 130.5mm H-Tuff	33070 or 33070X* Mains w/ #5 Thrust	615005C-4	615005CE-4	92.5mm/-12cc Dish	8.5
	15024R6-4 130.5mm H-Tuff Plus	or 33080 Mains w/ #3 Thrust	615010C-4	615010CE-4	93mm/-12cc Dish	8.5
	14416-4 130.5mm TT I-Beam					

## Subaru EJ20 Stroker Series 2.1L

### "Turbo Tuff" Billet 79mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Comp Ratio 48cc
190040B Billet	14024-4 130.5mm H-Beam	30070 or 30070X* Rod &	620000C-4	620000CE-4	92mm/-16cc Dish	8.5
	15024-4 130.5mm H-Tuff	33070 or 33070X* Mains w/ #5 Thrust	620005C-4	620005CE-4	92.5mm/-16cc Dish	8.5
	15024R6-4 130.5mm H-Tuff Plus	or 33080 Mains w/ #3 Thrust	620010C-4	620010CE-4	93mm/-16cc Dish	8.5
	14416-4 130.5mm TT I-Beam					

## Subaru EJ25 De-Stroke Series 2.35L

### "Turbo Tuff" Billet 75mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Compression Ratio 51cc
190160B Billet	14024-4 130.5mm H-Beam or 15024-4 130.5mm H-Tuff or 15024R6-4 130.5mm H-Tuff Plus or 14416-4 130.5mm TT I-Beam	30070 or 30070X* Rod & 33070 or 33070X* Mains	621000C-4	-----	<b>PLATINUM SERIES</b> 99.50mm/-18cc Dish	8.5
			621002C-4	-----	99.75mm/-18cc Dish	8.5
			621005C-4	-----	100.00mm/-18cc Dish	8.5
			621100C-4	-----	99.50mm/-6cc Dish	9.8
			621102C-4	-----	99.75mm/-6cc Dish	9.8
			621105C-4	-----	100.00mm/-6cc Dish	9.8
	632000C-4	632000CE-4	<b>TURBO TUFF® DESIGN</b> 99.50mm/-18cc Dish	8.5		
	632002C-4	632002CE-4	99.75mm/-18cc Dish	8.5		
	632005C-4	632005CE-4	100.00mm/-18cc Dish	8.5		
	632100C-4	632100CE-4	99.50mm/-6cc Dish	9.8		
	632102C-4	632102CE-4	99.75mm/-6cc Dish	9.8		
	632105C-4	632105CE-4	100.00mm/-6cc Dish	9.8		

Note: "TT" = "Turbo Tuff" design rod  
\* HX Series Bearings

# CUSTOM ROTATING ASSEMBLIES

## Subaru EJ25 Std Stroke Series 2.5L

### "Turbo Tuff" Billet 79mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Comp Ratio 51cc	57cc		
190040B Billet	14024-4 130.5mm H-Beam or 15024-4 130.5mm H-Tuff or 15024R6-4 130.5mm H-Tuff Plus or 14416-4 130.5mm TT I-Beam	30070 or 30070X* Rod & 33070 or 33070X* Mains	<b>PLATINUM SERIES</b>						
			612000CA-1**	-----	99.50mm Grade A/-22cc Dish	8.5	-		
			612000CB-1**	-----	99.50mm Grade B/-22cc Dish	8.5	-		
			612000C-4	-----	99.50mm/-22cc Dish	8.5	-		
			612001C-4	-----	99.55mm/-22cc Dish	8.5	-		
			612002C-4	-----	99.75mm/-22cc Dish	8.5	-		
			612005C-4	-----	100.00mm/-22cc Dish	8.5	-		
			612007C-4	-----	100.25mm/-22cc Dish	8.5	-		
			612200CA-1**	-----	99.50mm Grade A/-17cc Dish	9.0	8.5		
			612200CB-1**	-----	99.50mm Grade B/-17cc Dish	9.0	8.5		
			612200C-4	-----	99.50mm/-17cc Dish	9.0	8.5		
			612201C-4	-----	99.55mm/-17cc Dish	9.0	8.5		
			612202C-4	-----	99.75mm/-17cc Dish	9.0	8.5		
			612205C-4	-----	100.00mm/-17cc Dish	9.0	8.5		
			612207C-8	-----	100.25mm/-17cc Dish	9.0	8.5		
			612100C-4	-----	99.50mm/-10cc Dish	9.8	9.2		
			612102C-4	-----	99.75mm/-10cc Dish	9.8	9.2		
			612105C-4	-----	100.00mm/-10cc Dish	9.8	9.2		
			632200CA-1**	632200CEA-1**	99.50mm Grade A/-22cc Dish	8.5	-		
			632200CB-1**	632200CEB-1**	99.50mm Grade B/-22cc Dish	8.5	-		
			632200C-4	632200CE-4	99.50mm/-22cc Dish	8.5	-		
			632201C-4	632201CE-4	99.55mm/-22cc Dish	8.5	-		
			632202C-4	632202CE-4	99.75mm/-22cc Dish	8.5	-		
			632205C-4	632205CE-4	100.00mm/-22cc Dish	8.5	-		
			632800CA-1**	632800CEA-1**	99.50mm Grade A/-17cc Dish	9.0	8.5		
			632800CB-1**	632800CEB-1**	99.50mm Grade B/-17cc Dish	9.0	8.5		
			632800C-4	632800CE-4	99.50mm/-17cc Dish	9.0	8.5		
			632801C-4	632801CE-4	99.55mm/-17cc Dish	9.0	8.5		
			632802C-4	632802CE-4	99.75mm/-17cc Dish	9.0	8.5		
			632805C-4	632805CE-4	100.00mm/-17cc Dish	9.0	8.5		
			632300C-4	632300CE-4	99.50mm/-10cc Dish	9.8	9.2		
			632302C-4	632302CE-4	99.75mm/-10cc Dish	9.8	9.2		
632305C-4	632305CE-4	100.00mm/-10cc Dish	9.8	9.2					

## Subaru EJ25 Stroker Series 2.6L

### "Turbo Tuff" Billet 83mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Comp Ratio 51cc		
190060B Billet	14024-4 130.5mm H-Beam or 15024-4 130.5mm H-Tuff or 15024R6-4 130.5mm H-Tuff Plus or 14416-4 130.5mm TT I-Beam	30070 or 30070X* Rod & 33070 or 33070X* Mains	<b>PLATINUM SERIES</b>					
			622000C-4	-----	99.50mm/-26cc Dish	8.5		
			622002C-4	-----	99.75mm/-26cc Dish	8.5		
			622005C-4	-----	100.00mm/-26cc Dish	8.5		
			622100C-4	-----	99.50mm/-14cc Dish	9.8		
			622102C-4	-----	99.75mm/-14cc Dish	9.8		
			622105C-4	-----	100.00mm/-14cc Dish	9.8		
			632400C-4	632400CE-4	99.50mm/-26cc Dish	8.5		
			632402C-4	632402CE-4	99.75mm/-26cc Dish	8.5		
			632405C-4	632405CE-4	100.00mm/-26cc Dish	8.5		
			632500C-4	632500CE-4	99.50mm/-14cc Dish	9.8		
			632502C-4	632502CE-4	99.75mm/-14cc Dish	9.8		
			632505C-4	632505CE-4	100.00mm/-14cc Dish	9.8		

Note: "TT" = "Turbo Tuff" design rod \*\*These pistons feature skirt diameters that correspond to the OEM Grade A or B bores. Check the bore grades on the top of your block and order the appropriate quantities of Grade A or B pistons. (Sold as -1 individual pieces, not sets.)

\* HX Series Bearings

## Short Sleeve T-Shirts

► Made with a 60% cotton/40% polyester blend, the Manley logo is shown vertically on the front with a piston/connecting rod design on the back that is made up of the Manley logo.

Size	Black Part No.	Gray Part No.
Small	00005	00035
Medium	00004	00034
Large	00003	00033
X Large	00002	00032
XX Large	00001	00031



Gray T-Shirt Front



Black T-Shirt Back

## Black Ladies Fit Tops

► Same 60% cotton/40% polyester blend and printed design as our t-shirts except in a comfortable ladies fit top.

Size	Part No.
Small	00065
Medium	00064
Large	00063
X Large	00062
XX Large	00061



Ladies Fit Front



Ladies Fit Back

## Black Pullover Hoodies

► Pullover style made with a 50% cotton/50% polyester blend with a full front pocket.

Size	Hoodie Part No.
Small	00205
Medium	00204
Large	00203
X Large	00202
XX Large	00201



Hoodie Front



Hoodie Back Design

## FLEXFIT® Brand Fitted Hats

► Available in two sizes; S-M and L-XL, these black 98% cotton hats feature the Manley logo embroidered in black and gray on the front left.

Size	Part No.
S-M	00010
L-XL	00012



## Embroidered Mechanics Apron

- ▶ Attractive black cotton/polyester with embroidered Manley logo in red and white
- ▶ Large twin front pockets

Size	Part No.
Fits All	<b>42014</b>



## Vinyl Printed Banners

### Smaller Size White, Red and Black Design

- ▶ Made from durable 13-oz. vinyl material with 10 grommets around the border for easy hanging

Size	Part No.
52" x 19"	<b>00008</b>



### Larger Size White, Red and Black Design

- ▶ Made from durable 13-oz. vinyl material with 10 grommets around the border for easy hanging

Size	Part No.
96" x 30"	<b>00008TS</b>



### Larger Size White and Red Design

- ▶ Made from durable 13-oz. vinyl material with 8 grommets around the border for easy hanging

Size	Part No.
72" x 36"	<b>00013</b>



## Premium Quality Polyester Lanyard

- ▶ Printed with the MANLEY® Powers the Winners logo on both sides and a Lobster Claw Lanyard Attachment

Size	Part No.
5/8" x 36"	<b>LAN-BLACK</b>



Note: New part numbers are **BOLD & ITALICIZED**

# **PERFORMANCE**

## **BY THE NUMBERS...**

**Manley presents some handy charts and formulas to guide you in building engines.**

### **ENGINE DISPLACEMENT**

#### **Calculating Cubic Inches**

Multiply bore x bore x stroke x number of cylinders x .7854

Example:  $4.030 \times 4.030 \times 3.480 \times 8 \times .7854 = 355.1$  cubic inches

#### **Converting Cubic Inches to Liters**

Multiply the cubic inches by .01639

Example:  $427 \times .01639 = 6.997$  liters

#### **Converting Cubic Centimeters (cc's) To Cubic Inches**

Multiply the cubic centimeters by .06102

Example:  $1500\text{cc} \times .06102 = 91.53$  cubic inches

### **FUEL FLOW**

#### **Converting Cubic Centimeters Per Minute To Pounds Per Hour**

Divide the cc/min. by 10.5

Example:  $400 \div 10.5 = 38$  lbs. per hour

#### **Converting Pound Per Hour Into Gallons Per Hour**

Divide the lbs./hr. by 6

Example:  $300\text{lbs./hr} \div 6 = 50$  GPH

#### **Converting Cubic Centimeters Per Minute To Gallons Per Hour**

Multiply the cc/min. by .015873

Example:  $400 \times .015873 = 11.17$  GPH

### **AIR FLOW**

#### **CFM- Carburetor Air Flow Requirement (4 Stroke Engine)**

Multiply CID x RPM x VE and Divide by 3456

CID is displacement. RPM is engine speed, VE is volumetric efficiency (1)

Example:  $427 \times 6000 \times 1 \div 3456 = 741$  CFM

(note: racing engines use VE of 1, street engines use a VE of .85)

# CONVERSIONS

## METRIC CONVERSION CHART

QUANTITY	METRIC UNIT	SYMBOL	APPROXIMATE CONVERSION FACTOR(S)	
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Length	millimeter	mm	1mm = 0.039	1 in = 25.4mm
	killometer	km	1 km = 0.62 mile	1 mile = 1.61 km

Mass	gram	g	1 g = 0.035 oz.	1 oz = 28.4 g
	kilogram	kg	1 kg = 2.2 lb	1 lb = 0.45 kg

Area	square milmeter	mm <sup>2</sup>	1 mm <sup>2</sup> = 0.002 in <sup>2</sup>	1 in = 645 mm <sup>2</sup>
	square cenimeter	cm <sup>2</sup>	1 cm <sup>2</sup> = 0.15 in <sup>2</sup>	1 in = 6.45 cm <sup>2</sup>

Volume	cubic centimeter	cm <sup>3</sup>	1 cm <sup>3</sup> = 0.06 in <sup>3</sup>	1 in = 16.4 cm <sup>3</sup>
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Volume (Liquids)	Liter	L	1 L = 0.22 gal.	1 gal = 4.55 L
	cubic inch	in <sup>3</sup>	1 in <sup>3</sup> = .01639 liter	1 liter = 61.2545 in <sup>3</sup>

Flow	liter/sec	l/s	1 l/s = 0.22 gal/sec	1 gal = 4.55 l/s
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Force	Newton meter	Nm	1 Nm = 8.85 lb in	1 lb in = 0.11 Nm
			1 Nm = 0.74 lb ft	1 lb ft = 1.36 Nm

Pressure Vacuum	kilopascal	kPa	1 kPa = 0.15 lb/in	1 lb/in = 6.89 kPa
	kilopascal	kPa	1 kPa = 0.30 in Hg	1 in/Hg = 3.39 kPa

Spring Rate	newton/millimeter	N/mm	1 N/mm = 5.7 lb in	1 lb in = 0.10 N/mm
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Temperature	°C (Celsius)	°C	°C - 5/9 (°F - 32)	°F = 9/5 °C + 32
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## Decimal Conversion Chart

$\frac{1}{64}$ _____	.0156	$\frac{23}{64}$ _____	.3593	$\frac{45}{64}$ _____	.7031
$\frac{1}{32}$ _____	.0312	$\frac{3}{8}$ _____	.375	$\frac{23}{32}$ _____	.7187
$\frac{3}{64}$ _____	.0468	$\frac{25}{64}$ _____	.3906	$\frac{47}{64}$ _____	.7343
$\frac{1}{16}$ _____	.0625	$\frac{13}{32}$ _____	.4062	$\frac{3}{4}$ _____	.750
$\frac{5}{64}$ _____	.0781	$\frac{27}{64}$ _____	.4218	$\frac{49}{64}$ _____	.7656
$\frac{3}{32}$ _____	.0937	$\frac{7}{16}$ _____	.4375	$\frac{25}{32}$ _____	.7812
$\frac{7}{64}$ _____	.1093	$\frac{29}{64}$ _____	.4531	$\frac{51}{64}$ _____	.7968
$\frac{1}{8}$ _____	.125	$\frac{15}{32}$ _____	.4687	$\frac{13}{16}$ _____	.8125
$\frac{9}{64}$ _____	.1406	$\frac{31}{64}$ _____	.4843	$\frac{53}{64}$ _____	.8281
$\frac{5}{32}$ _____	.1562	$\frac{1}{2}$ _____	.500	$\frac{27}{32}$ _____	.8437
$\frac{11}{64}$ _____	.1718	$\frac{33}{64}$ _____	.5156	$\frac{55}{64}$ _____	.8593
$\frac{3}{16}$ _____	.1875	$\frac{17}{32}$ _____	.5312	$\frac{57}{64}$ _____	.875
$\frac{13}{64}$ _____	.2031	$\frac{35}{64}$ _____	.5468	$\frac{7}{8}$ _____	.8906
$\frac{7}{32}$ _____	.2187	$\frac{9}{16}$ _____	.5625	$\frac{29}{32}$ _____	.9062
$\frac{15}{64}$ _____	.2343	$\frac{37}{64}$ _____	.5781	$\frac{59}{64}$ _____	.9218
$\frac{1}{4}$ _____	.250	$\frac{19}{32}$ _____	.5937	$\frac{15}{16}$ _____	.9375
$\frac{17}{64}$ _____	.2656	$\frac{39}{64}$ _____	.6093	$\frac{61}{64}$ _____	.9531
$\frac{9}{32}$ _____	.2812	$\frac{41}{64}$ _____	.625	$\frac{31}{32}$ _____	.9687
$\frac{19}{64}$ _____	.2968	$\frac{43}{64}$ _____	.6406	$\frac{63}{64}$ _____	.9843
$\frac{5}{16}$ _____	.3125	$\frac{21}{32}$ _____	.6562	<b>1</b> _____	<b>1.000</b>
$\frac{21}{64}$ _____	.3281	$\frac{11}{16}$ _____	.6718		
$\frac{11}{32}$ _____	.3437		.6875		

## Metric Conversion Chart

<b>0.1mm = 0.00394"</b>	<b>1mm = 0.03937"</b>	<b>30mm = 1.18110"</b>
<b>0.2mm = 0.00787"</b>	<b>2mm = 0.07874"</b>	<b>40mm = 1.57480"</b>
<b>0.3mm = 0.01181"</b>	<b>3mm = 0.11811"</b>	<b>50mm = 1.96850"</b>
<b>0.4mm = 0.01575"</b>	<b>4mm = 0.15748"</b>	<b>60mm = 2.36220"</b>
<b>0.5mm = 0.01969"</b>	<b>5mm = 0.19685"</b>	<b>70mm = 2.75590"</b>
<b>0.6mm = 0.02362"</b>	<b>6mm = 0.23622"</b>	<b>80mm = 3.14960"</b>
<b>0.7mm = 0.02756"</b>	<b>7mm = 0.27559"</b>	<b>90mm = 3.54330"</b>
<b>0.8mm = 0.03150"</b>	<b>8mm = 0.31496"</b>	<b>100mm = 3.93700"</b>
<b>0.9mm = 0.03543"</b>	<b>9mm = 0.35433"</b>	
	<b>10mm = 0.39370"</b>	
	<b>20mm = 0.78740"</b>	