INFUSION

WWW.TSAMODEL.COM SERIES

E-MAIL: sales@tsamodel.com

TSA MODEL

WWW.TSAMODEL.COM

ENDLESS PURSUIT OF PERFECTION

TSA MODEL

DESIGNED BY
NIGEL BROWN

At TSA, we are committed to excellence.Our Research & Development team work in unison with Sales and Marketing to deliver market driven products. As a professional manufacturer of high quality large-scale remote control helicopters, our goal is to create unique and stylish products, engineered to perfection.

We truly believe that "perfection" is merely a standard in everything we do. We craft the finest quality line of products, by seeking state-of-the-art technologies and engineering practices, also combined with the latest's in high precision machinery. It doesn't matter if you are a professional pilot or someone with a life long ambition to fly, our helicopters will satisfy your every needs.

BRAND ADVANTAGE

Professional CNC Turning Center

TSA's components are manufactured in-house by state-of-the-art cnc turning centers in a single-step process.

All Carbon Fiber Material

TSA uses aero space carbon fiber extensively though out its product range. Delivering a light weight, extremely rigid and agile aircraft.

Swashplate Control Lever Positioning System

Innovative swashplate control lever positioning system enables pilots to precisely adjust swashplate lever to 90 degree angle.

CNC (Computer Numerical Control)

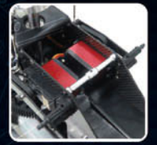
World leading CNC technology and methodology is applied to produce precision components.

Chamfered Parts and Components

All TSA metal parts and components are cnc chamfered in a single-step process guaranteing high tolerances.

User-friendly Design

TSA's products are crafted for convenience and efficiency, by applying user-friendly designs.



Servo support bracing increases rigidity and reduces servo loading.

Innovatively designed elevator control mechanism eliminates the need for an anti rotation guide. This ensures a precise, rigid and smooth operation system.

7 axis cnc machines produces a cutting edge high tolerance rotor head system. The 10mm feathering spindle provides rigidity for the most demanding of 3d style flying. Together this leads to a responsive consistent flying model.

Electronic mounting points are conveniently provided throughout the model. This ensures all installations are neat, with multiple layout configurations provided.

Dedicated inflight mixture servo locations is standardized throughout the TSA gas/nitro range. This provide enhanced tuning capabilities which increases power and maximizes engine longevity.

Both main and tail gears manufactured from high strength polymer impregnated metal. This ensures a durable and rigid drive line. Common components are used in both the primary and final drive gearboxes, providing a more user friendly approach of simplicity.

Tail bevel gears are manufactured from polymer impregnated metal along with an all aluminium construction, providing durability and strength in a light weight configuration. For precision and reliability, each tail rotor grip is equiped with a dual radial and thrust bearing.

Frame stiffeners located in high load areas for increased rigidity and robustness.

Specifications

- ★ Full length of fuselage ---------- 1368mm
- Full width of fuselage ---------- 215mm
- ★ Height ---------- 419mm
- Flying weight (approx) ---------- 4390g
- ★ Main rotor diameter ---------- 1580mm
- Tail rotor diameter ---------- 262mm
- ★ Engine class ---------- 90~120 Nitro
- Gear ratio ---------- 8.0~8.4:1:4.52
- ★ Main gear ratio ---------- 15T:120T/126T
- Tail gear ratio ---------- 113T:25T
- ★ Full tank capacity ---------- 650cc
- Main blade (not included) ---------- 680~710mm
- ★ Tail blade (not included) ---------- 90~110mm

INFUSION 700N Platinum

Specifications

- ★ Full length of fuselage ---------- 1373mm
- Full width of fuselage ---------- 215mm
- ★ Height ---------- 419mm
- Flying weight (approx) ---------- 4280g
- ★ Main rotor diameter ---------- 1580mm
- Tail rotor diameter ---------- 262mm
- ★ Engine class ---------- 90~120 Nitro
- Gear ratio ---------- 8.0~8.4:1:4.52
- ★ Main gear ratio ---------- 15T:120T/126T
- Tail gear ratio ---------- 113T:25T
- ★ Full tank capacity ---------- 650cc
- Main blade (not included) ---------- 680~710mm
- ★ Tail blade (not included) ---------- 90~110mm

INFUSION 700N Pro

Specifications

- ★ Full length of fuselage ---------- 1368mm
- ★ Full width of fuselage ---------- 215mm
- ★ Height ---------- 410mm
- Flying weight (12s5000mAh approx) ---- 5390g
- ★ Main rotor diameter ---------- 1580mm
- ★ Tail rotor diameter ---------- 262mm
- ★ Engine class ---------- 4,500~11,000W/500~550KV
- ★ Gear ratio ---------- 9.0/9.69/10.5/11.45:1:4.52
- ★ Main gear ratio ---------- 11T:12T/13T/14T:126T
- ★ Tail gear ratio ---------- 113T:25T
- ★ Main blade (not included) ---------- 680~710mm
- ★ Tail blade (not included) ---------- 90~110mm
- ★ Power battery ---------- 6S Li-Po 4000~5000mAh 2pcs

INFUSION 700E Platinum

Specifications

- ★ Full length of fuselage ---------- 1373mm
- ★ Full width of fuselage ---------- 215mm
- ★ Height ---------- 410mm
- ★ Flying weight (12s5000mAh approx) ---- 5260g
- ★ Main rotor diameter ---------- 1580mm
- ★ Tail rotor diameter ---------- 262mm
- ★ Engine class ---------- 4,500~11,000W/500~550KV
- ★ Gear ratio ---------- 9.0/9.69/10.5/11.45:1:4.52
- ★ Main gear ratio ---------- 11T:12T/13T/14T:126T
- ★ Tail gear ratio ---------- 113T:25T
- ★ Main blade (not included) ---------- 680~710mm
- ★ Tail blade (not included) ---------- 90~110mm
- ★ Power battery ---------- 6S Li-Po 4000~5000mAh 2pcs

INFUSION 700E Pro

Specifications

- ★ Full length of fuselage ---------- 1230mm
- ★ Full width of fuselage ---------- 215mm
- ★ Height ---------- 390mm
- ★ Flying weight (approx) ---------- 3540g
- ★ Main rotor diameter ---------- 1345mm
- ★ Tail rotor diameter ---------- 252mm
- ★ Engine class ---------- 50~55 Nitro
- ★ Gear ratio ---------- 8.7:1:4.52
- ★ Main gear ratio ---------- 14T:122T
- ★ Tail gear ratio ---------- 113T:25T
- ★ Full tank capacity ---------- 650cc
- ★ Main blade (not included) ---------- 600~620mm
- ★ Tail blade (not included) ---------- 90mm

INFUSION 600N Platinum

Specifications

- ★ Full length of fuselage ---------- 1235mm
- ★ Full width of fuselage ---------- 215mm
- ★ Height ---------- 390mm
- ★ Flying weight (approx) ---------- 3410g
- ★ Main rotor diameter ---------- 1345mm
- ★ Tail rotor diameter ---------- 252mm
- ★ Engine class ---------- 50~55 Nitro
- ★ Gear ratio ---------- 8.7:1:4.52
- ★ Main gear ratio ---------- 14T:122T
- ★ Tail gear ratio ---------- 113T:25T
- ★ Full tank capacity ---------- 650cc
- ★ Main blade (not included) ---------- 600~620mm
- ★ Tail blade (not included) ---------- 90mm

INFUSION 600N Pro

Specifications

- Full length of fuselage ---------- 1230mm
- Full width of fuselage ---------- 215mm
- Height ---------- 390mm
- Flying weight (12s5000mAh approx) ---- 4885g
- Main rotor diameter ---------- 1345mm
- Tail rotor diameter ---------- 252mm
- Engine class (12s KV) ---------- 3,000~11,000W/500~550KV
- Gear ratio ---------- 9.0/9.69/10.5/11.45:1:4.52
- Main gear ratio ---------- 11T/12T/13T/14T:122T
- Tail gear ratio ---------- 113T:25T
- Main blade (not included) ---------- 600~620mm
- Tail blade (not included) ---------- 90mm
- Power battery ---------- 6~12 S Li-Po
  3200~5000mAh

INFUSION 600E Platinum

Specifications

- Full length of fuselage ---------- 1235mm
- Full width of fuselage ---------- 215mm
- Height ---------- 390mm
- Flying weight (12s5000mAh approx) ----- 4720g
- Main rotor diameter ---------- 1345mm
- Tail rotor diameter ---------- 252mm
- Engine class ---------- 3,000~5,000W/500~550KV
- Gear ratio ---------- 9.0/9.69/10.5/11.45:1:4.52
- Main gear ratio ---------- 11T/12T/13T/14T:122T
- Tail gear ratio ---------- 113T:25T
- Main blade (not included) ---------- 600~620mm
- Tail blade (not included) ---------- 90mm
- Power battery ---------- 6~12 S Li-Po
  3800~5000mAh

INFUSION 600E Pro

trajectory

3 AXIS MEMS GYRO SYSTEM FOR RC-MODEL AIRCRAFT

Order Number:
TPA22500XX-2Blade

- TRAJECTORY has an CNC Billet Aluminium design casing. Its compact design allows installed in practically any sized model helicopter. TRAJECTORY can also be installed horizontally and in a vertical orientation.
- The on-board sensors are of the latest MEMS technology. With sophisticated internal sensory data processing TRAJECTORY is suitable for Electric, Nitro, Gas and Turbine powered helicopters.
- With an optional adapter cable, TRAJECTORY can also be utilized solely as a tail gyro. Take full advantage of the high precision and unbeatable holding power with advanced pitch to cyclic compensation features, which are unique to the TRAJECTORY. Specific features for fly-bar helicopters wanting a high performance tail gyro.
- With a simple push button menu and logical steps to follow the TRAJECTORY is the beginners dream from the beginning No need for a programming box or even a PC at the field. You are only a few button pushes away from setting up flying and activating advanced features while at the field.
- TRAJECTORY's integrated swashplate mixer enables the use of simple remote control systems which do not have their own swashplate mixing (NO-MIX).Single servo model allows TRAJECTORY to work with the most basic radio.

- TRAJECTORY is able to process many types of sum signals (PPM / S-BUS / Spektrum). With the optional Spektrum Satellite Adapter, installation in indoor model helicopters is also possible without a great number of wires.
- Updates and advanced setup possibilities (Setups) can be done comfortably with the optional USB interface „USB2SYS“ via the TRAJECTORY LINK interface. Software for Windows & Mac can be downloaded free at (http://trajectory.beastx.com)

MICROBEAST SPECS ENG	
Operating Voltage	3,5V...8,5 V DC (Lipo 2s possible)
Temperature Range	-15°C bis +40°C
Processor	32Bit ARM
Analog processing	17Bit
Sensor technology	3 MEMS angular rate sensors
Adjustable servo center pulse width	Tail: 760µs / 960µs / 1520µs
Adjustable servo pulse rate	Tail: 50 Hz / 165 Hz / 270 Hz / 330 Hz / 560 Hz Swashplate: 50 Hz / 65 Hz / 120 Hz / 200 Hz
Build-in swashplate mixer	Mechanical / 90° / 120° / 140° / 140° (1:1)
Serial pulse input	PPM / S-BUS / SRXL / Spektrum-satellite
Size	34 x 25 x 13,5 mm
Weight without cable	Approx. 20g

TSA MODEL

BEASTX BE ABSOLUTE STABLE

Powered by
BEASTX Technology

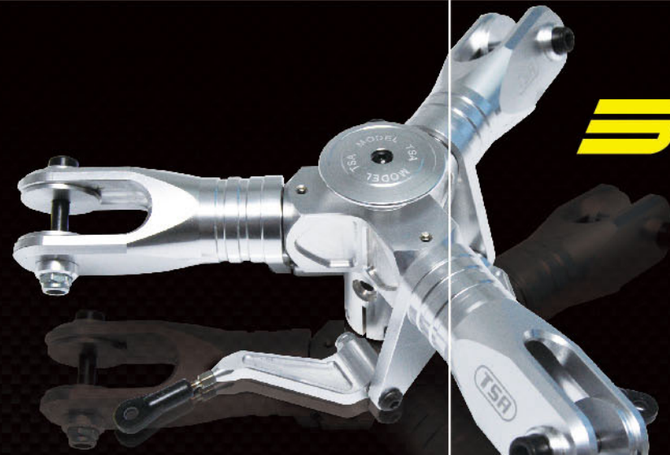
TSA MODEL

INFUSION

ENDLESS PURSUIT OF PERFECTION

2 ROTOR HEAD UPGRADE SET

Order Number: TPA22500XX



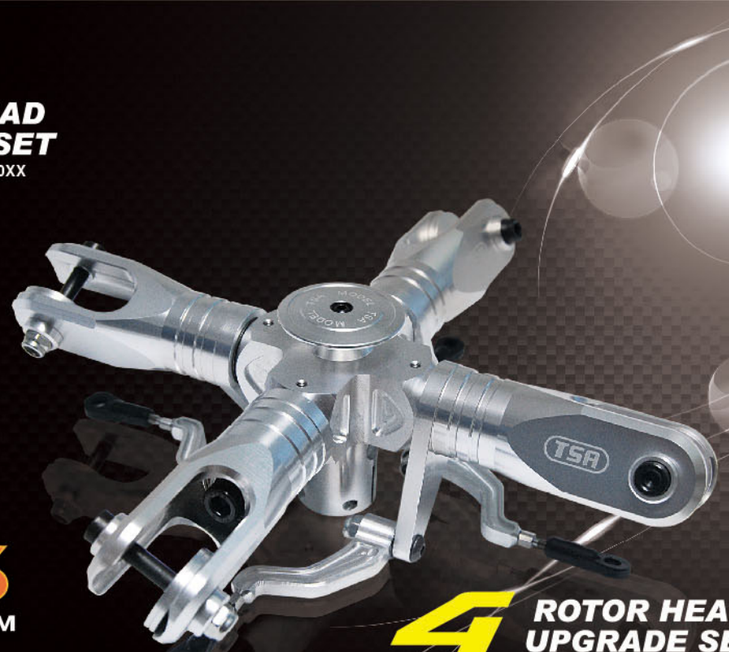
Platinum Series

3 ROTOR HEAD UPGRADE SET

Order Number: TPA22600XX

DRS

DIRECT ROTOR SYSTEM



4 ROTOR HEAD UPGRADE SET

Order Number: TPA22700XX

NEW

TSA MODEL

ANTI ROTATION ELEVATOR LEVER

- Designed to suit the Scorpion BIG Diameter Motors 4525 Ready.
- Standard in all new kits – Upgrade yours today.
- All metal carbon construction where strength and rigidity matter.
- Unleash the power and the precision of your TSA Model.
- 6 high quality ball raced design for ultimate precision.
- Swash plate phasing and elevator assembly in one.

OUR DISTRIBUTORS

A Main Hobbies	www.amainhobbies.com	America
Experience RC	www.experiencerc.com	America
Model Flight	www.modelflight.com.au	Australia
De Concorde	www.deconcorde.be	Belgium
Hobby Centre	www.hobbycentre.ae	Dubai
Helidigital SARL	www.helidigital.com	France
freakware	www.freakware.com	German
e-Hely	www.e-hely.com	Indonesia
Jonathan	www.jonathan.it	Italy
Aero World		Mexico
Goblin	www.goblinhobbies.co.za	South Africa
Area 51- RC	www.area51-rc.es	Spain

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TSA MODEL

PILOTS

America

Mason Dumanski Age 7

Year Started Flying - 2010
TSA Model would like to welcome Mason Dumanski to the team, a young and upcoming talent with amazing skills for his age.

Italy

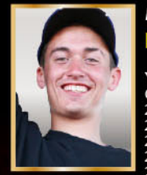
Luigi Rungi

Year Started Flying - 2006
Competitions -
2007 - Hirobo Cup Italy - 1 place
2008 - Italian Championchip - 1 place
2009 - 3D Master - 16 place in masterclass
2009 - Italian Championchip - 1 place
2009 - 3DX Italy - 1 place
2009 - 3D Master Spain - 6 place in masterclass
2010 - 3D Master Holland - 4 place in masterclass
2011 - 3D Master Holland - 10 place in masterclass
2012 - 3D Master Holland - 16 place in masterclass

Germany

Simon vom Baur

Year Started Flying - 2008
Competitions -
2011 - 3D Masters - 3rd place in synchro competition
2012 - Zone Format - 5th place
2012 - Indoor Cup GER - 1st place
2012 - 3D Cup France - 5th place
2012 - 3D Champs - 1st place in night flight
2012 - 3D Champs - 5th place (1st place freestyle round)



France

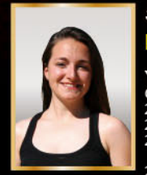
Dunkan Bossion

Year Started Flying - Plane at age 3 / Heli at age 7
Competitions -
2012 - 3D Master - 4th place in master class,
2rd place in Night flight
2012 - Zone Format - 2th place
2012 - 3D Cup - 1st place in master class in the total of points
2013 - HeliMasters - 2nd place professional class,
2nd place night flight

Germany

Timo Cürlis

Year Started Flying - 2009
Competitions -
2011 - Syncro Competition - 3rd place
2012 - 3D Cup France - 3rd place
2012 - Zone Competition - 4th place
2012 - German HeliMasters - 4th place
2013 - HeliMasters - 1st place in night flight



Spain

Raquel Bellot "Lady 3D"

Year Started Flying - 2003
Competitions -
2009 - 3D Masters - 1st position in night flight
2009 - 3DX Spain - 4 position
2011 - Zone Format U.K - 4 position

2008 - 2009 - 3DX Spain
2009 - 2010 - 2011 - 2012 - 3D Masters - night flight

TSA Model HeliMasters World Champions

Congratulation to
Timo Curlis & Dunkan Bossion
with great successed in
HeliMasters 2013

HELI MASTERS
www.heli-masters.com

TIMO CURLIS

1st place
Night Flying
Competition

DUNKAN BOSSION

2nd place
Professional Class

2nd place
Night Flying
Competition