

# **TW Industrial Finishing**

Masters of Finishing Technology Catalogue





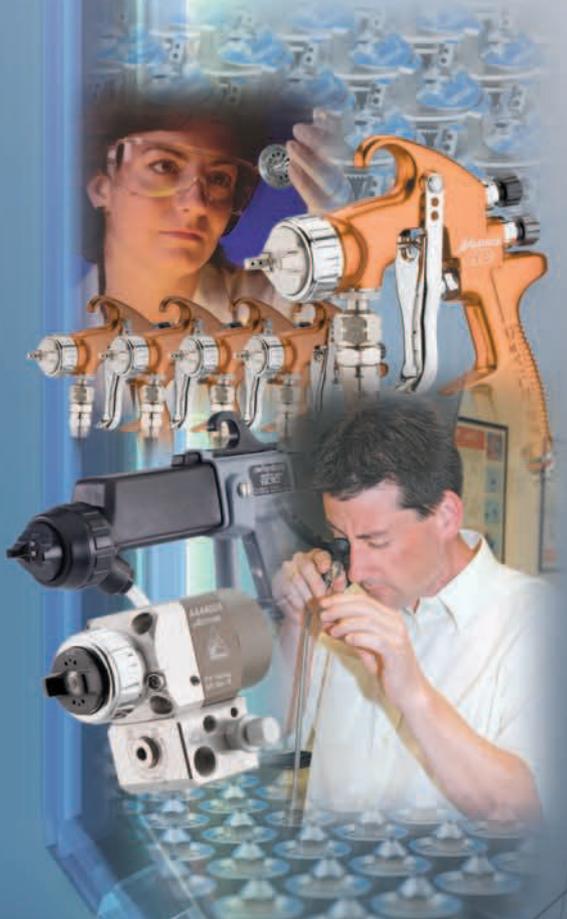
A leading international business corporation with nearly 100 years of history, Illinois Tool Works Inc. (NYSE: ITW) is a diversified manufacturer of advanced industrial technology. Specifically, we design and produce an array of highly engineered fasteners and components, equipment and consumable systems, and speciality products for customers around the world.

The 825+ decentralised business units that comprise our international business corporation are located in 52 countries and employ approximately 60,000 men and women who are focused on creating value-added products and innovative customer solutions.

ITW's Global Finishing Group has enjoyed considerable growth since the purchase of Ransburg-Gema in 1989, the DeVilbiss Company and Volsatic Inc in 1990 and the acquisition of Binks Manufacturing in 1998.

These companies together with BGK, Evercoat, Hosco, AWC and SprayCore form the ITW Global Finishing Group, a worldwide operation with business units serving the Finishing market.

Focused on spraying and enhancing the sprayed finish of painted surfaces, whilst reducing the release of overspray and VOC's into the atmosphere.





### **Binks working in virtually every industry around the world**

In 1890, Joseph Binks pioneered the spray gun industry with the introduction of the first cold-water paint spraying machine. It all started in the basement of Marshall Field & Company, when Joseph Binks figured out how to spray the walls instead of brushing them, and saved a lot of time.



Binks used his invention to rescue the opening of the 1896 Colombian Exposition: Just days before the opening, nine of ten exhibit buildings stood unpainted, but Binks saved the day. Today you can find spray finishing technology from Binks at work in virtually every industry around the world.

### **For over 120 years the DeVilbiss philosophy has been finding innovative solutions to spray finishing problems**

Founded in 1888 when Toledo, Ohio physician Dr. Allen DeVilbiss combined a bulb, some tubing, and the base of an oil can to create the first atomiser for health care. DeVilbiss is now the leading supplier of spray finishing equipment to the industrial and automotive refinish markets.



Since then, DeVilbiss has maintained its commitment to innovative technology by establishing itself as a team of experts who thoroughly understand the intricacies of the finishing process, the equipment design needed for achieving the highest quality finish, and the bottom line needs of customers to maximise productivity.

### **Ransburg, the acknowledged leader in electrostatic painting processes**

Harold Ransburg developed the first electrostatic application system in 1940 with the introduction of Ransburg No1. Further



developments through the 50s and 60s lead to Ransburg achieving material transfer efficiency levels of up to 98% and significant reductions in overspray, resulting in dramatic cost savings and reduced VOC emissions in a wide range of applications, in many different industries. Today Ransburg is a global brand which plays a vital role in the Finishing Division of ITW Inc. Ransburg is acknowledged as the market leader in the design and manufacture of electrostatic equipment. Its cutting edge technology has led to the development of rotary atomisers like bells and discs.

## **Decentralisation**

ITW operate a collection of business units and brands across diverse worldwide end markets. This decentralised operating strategy and focus places the businesses closer to the people who buy our products. This familiarity results in entrepreneurial sales and support activities, where ITW can quickly identify and respond to customer needs at the business unit level by providing original, customised products and service.

## **Innovation**

ITW's culture is rooted in developing commercial innovations. Many of the product success stories begin on-site, where customers' needs are most apparent. Thanks to the expertise of ITW's management and sales force (many of whom are trained engineers) ITW is well equipped to provide practical and time-sensitive solutions to the most complex situations. The seasoned workforce intimately understands the manufacturing challenges facing customers and can develop original solutions from the ground up.

ITW also has the ability to support customers businesses through the world renowned ITW Technology Centre. Working on a request-only basis from any of the 825+ business units, the technology centre provides advanced consulting on issues such as cutting-edge materials, mechanical designs and manufacturing processes.

ITW's passion for creating commercial innovations is no secret, that's why ITW typically rank in the top 100 of patent recipients in the United States. In 2007, ITW had nearly 20,000 unexpired patents and pending applications worldwide and ranked 79 of top issuers of U.S. patents in 2006.

In addition, each year ITW recognise the worldwide patent contributions of our people through the ITW Patent Society. Founded in 1969, the society has 800 members, including hundreds of engineers, technicians and other innovative thinkers employed by ITW (including hundreds of talented sales people). Nearly 185 of the members are considered Distinguished Fellows, recognised for having patents on inventions for products with noteworthy commercial success, and 21 individuals are Hall of Fame members, distinguished for their lifetime achievement.

## **Customer focused management**

Known internally as the ITW Toolbox, this repository of proven strategies and techniques guides the business process and helps us find new ways to enhance customer satisfaction as well as improving our productivity.



## **ITW Industrial Finishing**

### **Global manufacturing and R&D**

**Facilities are located in Europe, USA, Australia, Brazil, China, Japan and Mexico with long established Industrial Distributors serving all Countries around the World.**

ITW Industrial Finishing Europe manufacture and supply all types of Industrial Spray Finishing Equipment and Accessories.

Incorporating the world leading Brands of Binks, DeVilbiss and Ransburg producing "cutting edge" high technology Spray Finishing Equipment for the supply and application of all sprayed materials for all major manufacturing Industries and Markets.

This catalogue depicts the range of Binks, Devilbiss and Ransburg Spray Finishing products available from our European sales and marketing operations. This all encompassing product range is itemised in the contents index opposite.

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### Fully Approved Distributors offer the Highest Standards of Sales and Service of Binks, DeVilbiss and Ransburg products throughout Europe.

ITW-IF Distributors are carefully selected and have met our exacting criteria. To qualify, a Distributor must agree to a comprehensive range of business improvements including: a highly efficient parts and service operation, specialist staff training by ITW to ensure expert product knowledge, the provision of technical support and implementation of approved management systems.

#### Proven to be the best

After thorough evaluation of how best to serve our customers, established distributors have proved by far the best method of achieving this goal. Existing Distributors are strategically selected, they understand local industries and their specific finishing requirements. What's more they have the facilities coupled with in-depth product knowledge and experience that we know customers really value.



## Manual and Automatic spray guns...

### DeVilbiss

Manufactures low pressure manual and automatic spray guns and related spraying accessories; including air filter reducing valves and regulators, operator breathing systems, spray gun cups, hoses and other equipment for the Industrial Finishing Markets. DeVilbiss is widely recognised for the development and introduction of the first “Compliant” spray guns, which greatly reduce overspray and VOC’s into the environment. An expertise in ergonomics and innovative spray gun design is widely acclaimed.

### Binks

Manufactures low and high pressure manual and automatic spray guns, accessories, airless and air assisted airless spray painting outfits; high and low pressure fluid handing pumps and regulators, pressure feed tanks, 2K electronic paint mixing machines and paint circulating systems for the industrial finishing and automobile manufacturing markets.

A pioneer in spray finishing technology which includes the development and introduction of the world’s first “stand alone” HVLP spray guns.

### Leading the way with spray gun Innovation

Binks and DeVilbiss invented the world’s first “stand alone” HVLP and COMPLIANT technology spray guns back in the 1980’s resulting in a revolution in the way our spray guns atomise paints to provide the bench mark in paint transfer efficiencies saving paint for the end users and dramatically reducing the emission levels of harmful VOC’s into the atmosphere. These and other patented ground breaking product developments have placed Binks and DeVilbiss as the foremost spray equipment manufacturer for many years.

*Here is an explanation of the atomising technologies mentioned throughout this section.*

#### Conventional “Air Spray” Atomisation

The most established method of air atomising used on “conventional” spray guns, uses relatively high velocity compressed air to provide good atomisation of the sprayed material. However this process results in low paint transfer efficiencies due to the ‘bounce-back’ and ‘overspray’ generated. Compressed air operating pressures used in this process are typically 2 to 4 BAR (30 to 60 psi).

#### HVLP (High Volume Low Pressure)

This “compliant” atomisation method first became important in the 1980’s when environmental legislation was first introduced. It uses larger compressed air volumes at lower pressures to atomise the coating. It has a much higher transfer efficiency than Conventional Air Spray. However, the droplet size produced tends to be slightly larger, sometimes resulting in a lower quality finish. HVLP operates at 0.7 BAR (10 psi) at the air cap in compliance with global environmental legislation to provide greater than 65% transfer efficiencies.

#### TRANS-TECH® (Compliant)

This atomisation type was introduced by DeVilbiss in the mid 1990’s and is a ground breaking combination of Conventional and HVLP atomisation methods. TRANS-TECH utilises more compressed air energy for the atomisation process producing much higher Transfer Efficiency of coating material than the Conventional method. This ‘complies’ with Global legislation by being able to transfer at least 65% of the sprayed material to the component. Air Cap Pressure is typically 1.3 to 3 BAR (20 to 45 psi). HVLP has mostly been replaced by DeVilbiss TRANS-TECH Atomisation in most applications due to its superior finish qualities.

#### Airless Spray

Airless spraying is a method of spray application that does not directly use compressed air to atomise the paint/coating material, hence the terminology “Airless”. Hydraulic fluid pressure is used to atomise the paint by pumping it at high pressures of about 30 to 450 BAR (500 to 6500 psi) through a small orifice spray nozzle (typically tungsten carbide) The resulting spray atomisation is ideal for the very fast application of protective and decorative coatings. Typical applications include corrosion protection of large steel components and structures, and the interior of buildings.

#### Air Assisted Airless

The paint/coating material is hydraulically forced through a small orifice spray nozzle (tungsten carbide) with a typical fluid pressure of 25 to 120 BAR (400-1800 psi). Final atomisation and fan shaping air is then added by the Binks HVLP/Compliant air cap blending with the fluid stream to produce an exceptionally fine and even spray pattern with very little overspray. This unique combination of Air Assisted Airless/HVLP technologies results in a finely atomised “soft spray” pattern producing a high quality finish that particularly lends itself to finishing wooden products that need an exceptionally fine finish with greatly reduced overspray in compliance with worldwide VOC regulations.

# Innovation and Technical Excellence

## Global Leaders

DeVilbiss and Binks the globally acknowledged leaders in spray gun and air cap design, have pioneered and perfected paint atomisation technology innovations, to ensure the highest possible standards in paint application and finish. The manual and automatic spray guns depicted in this section are evidence of the continual commitment to product excellence from the world leaders in spray gun manufacturing.

## Research and Development

Huge resources are dedicated to research and development. ITW Industrial Finishing work closely with the leading paint companies and specialists in surface coatings to ensure our equipment consistently provides the standard of finish our customers demand.

## Atomisation Technologies

DeVilbiss and Binks manual and automatic spray guns utilise Conventional, HVLP, TRANS-TECH Compliant, Airless and Air Assisted Airless atomisation technologies to apply a wide range of industrial coatings. (For a detailed explanation of these technologies see page 6 and for electrostatic technologies page 18).

## Applications

- Aircraft and Aerospace Industry
- Agricultural and Farming Machinery
- Furniture Manufacturers (Wood and Metal)
- General Industry
- Leather Goods and Shoe Makers
- Defence and Military Fighting Vehicles
- Potteries (Glaze)
- Trade Coaters - Stove Enamellers
- Marine and Boating Industry
- Woodworking and Joinery
- Truck and Bus
- Rail and Transport
- Off Road Vehicles – fork lift trucks, plus many others

## Compatible Material/Coating Types

- Solvent and Water Based Materials
- Compliant/High Solids Coatings
- Adhesives
- Primers, Enamels and 2K Polyurethanes
- Fillers, Sealers and Lacquers
- Cellulose
- Pre-Catalysed
- Acid Catalysed
- U.V. Curing Sealers and Topcoats
- Stains and Varnishes
- Release Agents
- Twin Pack Materials (2K)
- Anticorrosive Paints, plus many others



**Manual Spray Guns**

*Advance* **HD**  
by **DEVILBISS**

DeVilbiss spray guns have *Advanced* again with the introduction of a new spray gun range suitable for all Industrial spray applications

**The all purpose mid-sized Compliant spray gun range**

- Robust, Lightweight and work friendly design for *High Demand* outputs
- Balanced air valve design for lighter trigger pull and improved air flow
- TRANS-TECH Compliant and HVLP air caps provide superior finish with the best possible paint savings and transfer efficiency
- Contoured handle design – Greatly reduces RSi and operator fatigue
- Stainless Steel tips, needles and fluid passageways as standard
- CE marked and fully ATEX approved.

The comprehensive Advance HD (*High Demand*) spray gun range ensures there's a DeVilbiss spray gun to suit all types of industrial spray finishing applications. Pressure, Suction and Gravity feed, the Advance HD family utilise a comprehensive, wide range of Compliant Air Caps to provide outstanding coatings' atomisation for handling all types of solvent, waterborne, high solids and 2K materials.

**DeVilbiss expertise and performance unequalled at work...**

Advance HD unrivalled high performance is achieved with new design technology utilising high capacity air passages with a separate "balanced" air valve to provide an unrestricted flow of compressed air through the gun body. This "free breathing" air movement enables the precision-engineered air caps and fluid tips to produce superior atomisation with consistent even distribution throughout the spray pattern. Advance HD is precision built using the best materials and component parts for a guaranteed, reliable, long and durable working life in all industrial markets.

**Advance HD – Naturally comfortable...**

Light weight with a lighter trigger action and increased finger room. Advance HD is perfectly balanced and naturally comfortable thanks to the fit and feel of the contoured handle design. It greatly reduces operator fatigue and significantly lessens the chances of RSi or finger problems. Comfort that pays off by increasing productivity wherever DeVilbiss Advance spray guns are used, whether it's a small finishing operation or a high volume production line.

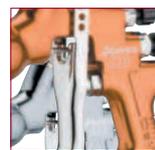
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**Key features and benefits of all Advance**



- "TRANS-TECH" Compliant, HVLP or Conventional Air Caps, St St Fluid Tips and Needles with Hardened and tungsten carbide options provide universal compatibility with ALL Industrial Spray Coatings.
- Stainless Steel Fluid passageway/inlet with 3/8" Universal Thread for BSP and NPS compatibility.
- No Baffle design – reduced number of parts, reducing weight and making cleaning easier.



- Increased "Finger" Space – Easier operator access.
- Lighter Trigger Pull Tension – Decreased RSi and Operator Fatigue.
- Self adjusting Needle Packing Assy – PTFE.
- Comfortable operator friendly Trigger design – with reduced trigger travel.

DeVilbiss Advance HD has a very wide selection of fluid and air nozzles to provide outstanding atomisation over a wide range of materials including high solids, solvent/waterborne paints, lacquers, stains, glaze, base and clear coats, twin pack and many other finishing materials.

Example of Advance HD spray gun part numbering:- ADV-P522-14 = ADV = Advance gun / P = Pressure / 522 = TRANS-TECH Air Cap / 14 = 1.4mm Fluid tip and needle. Advance HD spray guns kits are packaged as:- Pressure gun only, Suction gun with 1 litre cup and Gravity feed kits inc. 568 ml standard gravity cup.

Air Cap Number and Type	Air Consumption	Air Inlet Pressure Bar (psi) recommended	*Typical Fluid Flow ml	*Typical Fan Pattern size mm
No. 500R (HVLP)	195 l/min (7 scfm)	1.0 bar (14 psi)	130-190	Round spray
No. 505 (HVLP)	385 l/min (13.6 scfm)	1.3 bar (19 psi)	130-190	270
No. 510 TRANS-TECH	283 l/min (10 scfm)	2 bar (29 psi)	160-220	270
No. 513 TRANS-TECH	394 l/min (14.1 scfm)	2 bar (29 psi)	200-800	350
No. 522 TRANS-TECH	410 l/min (14.5 scfm)	2 bar (29 psi)	200-600	350
No. 523 TRANS-TECH	410 l/min (14.5 scfm)	2 bar (29 psi)	200-400	300
No. 590 TRANS-TECH	218 l/min (7.8 scfm)	2 bar (29 psi)	0-150	150
No. 591 TRANS-TECH	218 l/min (7.8 scfm)	2 bar (29 psi)	0-150	150

No. 505 (HVLP) and No. 500R (HVLP) air caps operate at 0.7 bar (10 psi) at the cap. All illustrated flow rates and fan sizes may vary according to paint/material viscosity and pressures used.

Air Cap No.	Technology	0.5 mm	0.7 mm	0.85 mm	1.0 mm	1.2 mm	1.3 mm	1.4* mm	1.6 mm	1.8* mm	2.0 mm	2.2* mm	2.8* mm
500R	HVLP			P	P	P	P G	P	P G S	P G S	P G S	P G	
505	HVLP			P	P	P	P G	P	P G S	P G S	P G S	P G	
510+	TRANS-TECH			P	P	P	P G	P	P G S	P G S	P G S	P G	
513	TRANS-TECH			P	P	P	P G	P	P G S	P G S	P G S	P G	
522	TRANS-TECH			P	P	P	P	P	P	P	P	P	P
523	TRANS-TECH			P	P	P	P	P	P	P	P	P	P
590	TRANS-TECH	P	P		P								
591	TRANS-TECH	P	P		P								

P = Pressure G = Gravity S = Suction \* Hardened and/or tungsten carbide tips and needles are available in these sizes.

# Manual Spray Guns

## Advance HD by DEVILBISS

1 2 3 4 5



### The all purpose mid-sized Conventional spray gun range

- Wide range of conventional atomisation air caps provide a superior sprayed finish
- Robust, Lightweight and work friendly design for *High Demand* outputs
- Stainless Steel tips, needles and fluid passageways as standard
- Contoured handle design – Greatly reduces RSi and operator fatigue
- CE marked and fully ATEX approved

The DeVilbiss Advance HD (*High Demand*) spray guns are available in Pressure, Suction and Gravity feed formats and a wide range of conventional technology Air Caps provide exceptional atomisation for coating wood, metal, plastic, ceramic and composite substrates with most types of solvent, waterborne, high solids and 2K materials.

### DeVilbiss outperforms the rest

Advance HD's unique high capacity airflow and outstanding atomisation characteristics are combined with a separate "balanced" air valve to provide an unrestricted flow of compressed air through the gun body, this coupled with light, feel right comfort is an unbeatable combination. Advance spray guns are ideal for small operations or high volume spraying, with the added bonus of instantly improved finishing productivity. Advance HD is precision built by DeVilbiss using the best materials and component parts for a guaranteed, reliable, long and durable working life in all industrial markets.



## guns for High Demand applications



- Forged Aluminium Alloy Gun Body – Heavily Anodised for a Rugged Long working life.
- Wider Hook opening 1/2" (12mm).
- Gun Controls – Easy Adjustment for precise control of Fluid output and atomising air.
- Separate "balanced" Air Valve design for precise air flow triggering and easier cleaning.



- Curved Handle design – provides superior operator fit and feel with reduced RSi and operator fatigue.
- Air Inlet Adjuster "Cheater" valve included as standard.
- 1/4" Universal Thread air inlet.

**Example of Advance HD spray gun part numbering:- ADV-P430-14 = ADV = Advance gun / P = Pressure / 430 = Conventional Air Cap / 14 = 1.4mm Fluid tip and needle.**  
Advance HD spray guns kits are packaged as:- Pressure gun only, Suction gun with 1 litre cup and Gravity feed kits inc. 568 ml standard gravity cup.

Air Cap Number and Type	Air Consumption	Air Inlet Pressure Bar (psi) recommended	*Typical Fluid Flow ml	*Typical Fan Pattern size mm
No. 430 Conventional	339 l/min (12 scfm)	3.5 bar (50 psi)	200-280	200
No. 443 Conventional	345 l/min (12.3 scfm)	3 bar (45 psi)	200-300	300
No. 470 Conventional	465 l/min (16.4 scfm)	3 bar (45 psi)	500-1800†	420†
No. 497 Conventional	510 l/min (18 scfm)	3.5 bar (50 psi)	200-600	380

All illustrated flow rates and fan sizes may vary according to paint/material viscosity and pressures used.

† = ceramic material

### Tip and Cap Chart

Air Cap No.	Technology	0.85 mm	1.0 mm	1.2 mm	1.3 mm	1.4* mm	1.6 mm	1.8* mm	2.0 mm	2.2* mm	2.8* mm
430	Conventional	P	P	P	P G	P	P G S	P G S	P G S	P S	
443	Conventional	P	P	P	P G	P	P G S	P G S	P G S	P S	
470	Conventional									P	P
497	Conventional	P	P	P	P	P	P	P	P	P	

P = Pressure G = Gravity S = Suction \* Hardened and/or tungsten carbide tips and needles are available in these sizes.

### Optional accessories for Advance

1. VSA-512 St/St Fluid Filter Kit (inc. 3 elements)
2. Tungsten Carbide and Hardened Tips/Needles (for use on abrasive materials)
3. Nylon Tipped Needle.



Suction cup pt. no. TGC-545-E-K



Gravity cup pt. no. GFC 501



Gravity cup (Blue polyester) pt. no. GFC 511 for difficult fluids



# Manual Spray Guns



## DeVilbiss GTi HD – the ultimate in spray gun technology

1 4

Over many years the DeVilbiss GTi range of Compliant spray guns have established themselves as firm favourites with sprayers all over the world. As part of DeVilbiss's continued commitment to be the world leader's in spray gun technology, these iconic spray guns have been completely re-designed and engineered with new gun bodies, air caps, tips, triggers and air valves. Beneath the familiar exterior is the very latest in balanced air management and atomisation technology. These significant product developments once again provide these guns with unrivalled finishing performance and durability.

### The 'full size' Compliant spray gun range

- Renowned DeVilbiss atomisation quality
- TRANS-TECH fully EPA compliant for superior material transfer efficiency and significant paint savings
- High Speed application with consistent lay-down and superior finish
- Balanced air valve design for lighter trigger pull and improved air flow
- Tough, corrosion resistant anodised gun body
- Modular components for easier, faster servicing
- Precision high grade ST/ST fluid tips and needles as standard

Air Cap Number and Type	Recommended Inlet Pressure	Air Flow @ 2 bar/29 psi
T1 TRANS-TECH Gravity/Suction/Pressure	2 bar (29psi)	280 l/min (10 scfm)
T2 TRANS-TECH Gravity/Suction/Pressure	2 bar (29psi)	350 l/min (12 scfm)
T4 TRANS-TECH Pressure	2 bar (29psi)	300 l/min (11 scfm)

SPECIFICATION	GTi HD Gravity	GTi HD Suction	GTi HD Pressure
Air Connection	1/4" Universal	1/4" Universal	1/4" Universal
Fluid Connection	N/A	3/8" Universal	3/8" Universal
Gun Weight (without cup)	585g	650g	650g

Air Cap No.	Tip size	0.85mm	1.0 mm	1.2 mm	1.3 mm	1.4 mm	1.6 mm	1.8 mm	2.0 mm
T1	P	P	P G	G	P G	P S	P S	P S	PS
T2	P	P	P G		P G	P S	P S	P S	PS
T4	P	P	P		P			P	

P = Pressure G = Gravity S = Suction

Example of GTi HD spray gun part numbering:- GTiPHD-T1-10 =

GTiPHD = GTi Pressure Gun HD / T1 = T1 Air Cap / 10 = 1.0 mm Fluid tip and needle.



GTi HD pressure feed spray gun



GTi HD gravity gun



GTi HD suction kit



## The Finishing World's favourite spray guns just got better with the introduction of the HD (High Demand) range.

1 4

The DeVilbiss JGA & GFG HD are high performance conventional air atomising guns suitable for most industrial spray finishing applications and are made of the best available materials to withstand the highest demands in the modern spray shop, to provide a guaranteed, long and durable working life. The guns can be used with virtually all industrial solvent and water based paints, coatings, lubricants, dyes, stains, varnishes, lacquers and adhesives.

### The 'full size' Conventional spray gun range

- Renowned DeVilbiss Atomisation Quality
- Genuine fast application rates
- Forged aluminium gun body for long life service
- Light smooth trigger action to reduce operator fatigue
- Balanced air valve design to improve air flow characteristics

Air cap Number and Type	Recommended Inlet Pressure	Air Flow @ 3 bar/43.5 psi
C1 Conventional Gravity/Suction/Pressure	2.5-3 bar (36-44 psi)	250-300 l/min (9-11 scfm)
C2 Conventional Gravity/Suction/Pressure	2.5-4 bar (36-58 psi)	255-400 l/min (9-14 scfm)
C3 Conventional Pressure	2.5-4 bar (36-58 psi)	260-410 l/min (9-15 scfm)

Specifications	JGA HD	GFG HD
Air Connection	1/4" Universal	1/4" Universal
Fluid Connection	3/8" Universal	N/A
Gun Weight (without cup)	650g	585g

Air Cap No.	Tip size	0.85mm	1.0 mm	1.2 mm	1.4 mm	1.6 mm	1.8 mm
C1	P	P	P	P	P G S	P G S	P G S
C2	P	P	P	P G	P G S	P G S	P G S
C3	P	P	P	P	P	P	P

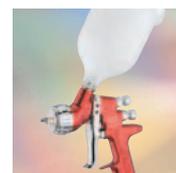
P = Pressure G = Gravity S = Suction

Example of JGA HD spray gun part numbering:- JGAPHD-C3-10 =

JGAPHD = JGA Pressure Gun HD / C3 = C3 Air Cap / 10 = 1.0 mm Fluid tip and needle.



JGA HD pressure feed spray gun



GFG HD gravity gun



JGA HD suction kit



# Manual Spray Guns



## DeVilbiss PRi HD – the ultimate in primer spray gun technology

1 4

The PRi HD is a compliant gravity feed spray gun specifically designed for the application of modern primers, surfacers and fillers. The all new P1 primer air cap incorporates the latest DeVilbiss TRANS-TECH atomisation technology for total compliance with EPA regulations. Primer guns must be compliant in their own right. The P1 air cap is manufactured in plated brass for ultimate durability.

### The all purpose full size Compliant primer spray gun

- Large spray patterns and even material distribution
- Suitable for all types of primers, surfacers, fillers and polyesters
- Air adjuster valve on the gun handle allows instant pressure control
- Balanced air valve design for lighter trigger pull and improved air flow
- Tough and durable drop forged aluminium gun body
- Paint cup includes integral filter and drip-check lid

Air cap Number and Type	Recommended Inlet Pressure	Air Flow @ 2 bar/29 psi
P1 TRANS-TECH Gravity	2 bar (29psi)	300 l/min (11 scfm)

PRi HD Gravity Fluid Tip/Needle (mm) size and code: 1.4, 1.6, 1.8, 2.0, 2.5

Specifications	PRi HD
Air Connection	1/4" Universal
Gun Weight (without cup)	585g

Example of PRi HD spray gun part numbering: PRIHD-P1-14 = PRIHD = PRi HD Gravity Gun / P1 = P1 Air cap / 14 = 1.4 fluid tip and needle.



PRi HD gravity kit



## A fine finish spray gun to provide ultra sensitive fan pattern control with the comfort of a full-size spray gun

1 4

The DeVilbiss SRi HD is the ultimate fine finish spray gun providing superb feathering control combined with the pattern range and versatility needed for top quality fine finishing including spot repairs, shading and stencilling, whilst providing excellent comfort stability, balance and delicacy of control.

### Fine finish spray gun

A small scale fine finish spray gun with many practical uses throughout general industry, ergonomically styled for comfort.

- Choice of HVLP or TRANS-TECH® Compliant air caps provide superb atomisation of both solvent and waterbased materials
- Stainless steel fluid tips & needles
- Balanced air valve design for lighter trigger pull and improved air flow
- Lightweight, strong, cast aluminium gun body
- SRi is supplied as standard with a quality screw top gravity feed cup with 125mls. capacity
- Optional inexpensive semi-disposable cups are available

Air cap Number and Type	Recommended Inlet Pressure	Air Flow @ recommended inlet pressure
HS1 HVLP Gravity	2 bar (29psi)	135 l/min (5 scfm)
TS1 TRANS-TECH Gravity	2 bar (29psi)	100 l/min (4 scfm)
RS1 TRANS-TECH Round Spray Gravity	1 bar (15 psi)	55 l/min (2 scfm)

SRi HD Gravity Fluid Tip/Needle (mm) sizes and code: 0.8, 1.0, 1.2, 1.4

SPECIFICATION	SRi HD Gravity
Air Connection	1/4" Universal
Gun Weight (with cup)	500g

### Typical Applications in General Industry

- Fine shading
- Retouching
- Stencilling
- Spot repair
- Reworking

Example of SRi HD spray gun part numbering: SRiHD-TS1-08 = SRiHD = SRi HD Gravity Gun / TS1 = TS1 Air cap / 08 = 0.8 fluid tip and needle.



Gravity Cup Part no: SRi-510



Kit contents are spray gun c/w selected air cap and tip set up, gravity cup, pouring funnel, spanner, torx key and cleaning brushes.

### Optional accessories for GTi and JGA guns

VSA-512 St/St Fluid Filter Kit (inc. 3 elements)



Suction cup pt. no. TGC-545-E-K



Gravity cup pt. no. GFC 501



Gravity cup (Blue polyester) pt. no. GFC 511 for difficult fluids



# Manual Spray Guns

## FLG5 Manual Spray Gun Range

1 4

- Low cost spray guns for use with a wide range of general industrial paints and materials
- FLG-5 employ DeVilbiss TRANS-TECH® atomisation for paint saving efficiency, superb finishes plus compliance with EPA legislation
- Ultra lightweight, strong, cast aluminium gun body
- Ergonomically shaped gun handle for balance, grip and comfort
- Precision engineered brass air cap and stainless steel fluid tips and needles for long service life

FLG-5 is suitable for most routine spray jobs in the workshop and can also be used by DIY enthusiasts. This budget range of spray guns are available as spray gun kits in Suction and Gravity versions and there is also a Pressure gun option for the larger areas requiring fast coverage without the added down time of re-filling small cups.

The low cost solution: Suction and Gravity guns are supplied in kits.

**Example of FLG5 spray gun part numbering:- FLG5-G5-14 =**  
 FLG5 = model / G5 = Gravity/Air Cap / 14 = Fluid Tip

Air Cap No	Tip Size 1.4mm	Tip Size 1.8mm	Tip Size 2.0mm
No 5 Cap	G	G S	G
No 622 Cap	P		

P = Pressure G = Gravity S = Suction



## Digital Air Pressure Adjuster

4 5

- Clear and Accurate DIGITAL Air Pressure Display
- Extremely accurate
- Easy to read
- Very tough
- Solvent resistant
- Zone 0 - intrinsically safe
- Clear and easy to read, just squeeze the trigger and set

Provides accurate control of air pressures on Spray Guns, Paint Pumps, Pressure Tanks and many other finishing products and applications. The DGi Pro digital air pressure gauge by DeVilbiss is a 'Zone 0' approved digital air pressure gauge designed specifically for the spray finishing industry. Engineered by DeVilbiss, the DGi Pro can even be put into the gun wash machine! Accurate and repeatable pressure settings to within .05 bar are assured with the smooth valve action. The DGi Pro is designed to have a service life of two years based on 24 hours a day continuous use.



Part no: DGiPro-502-BAR

## DAGR Airbrush

4

- Hairline detail to high paint-flow shading and gradual fades
- Smooth double action trigger
- Pre-set handle for precise control of paint flow
- Light weight and balanced
- Choice of trigger buttons
- Removable 1/3 oz gravity cup with optional 1/4 oz and 1/2 oz

DAGR sprays most light paints and finishes with excellent control and hairline detail. High paint-flow shading and gradual fades can be achieved. It has a crown design cap to allow fine line work and to protect the needle from accidental damage.

As standard it is supplied with a removable 1/3 fl oz gravity cup and servicing spanner. For really small area work the artist can choose to use no cup at all by filling the reservoir in the airbrush barrel itself.

The airbrush is well-balanced with a smooth, double-action trigger. The solvent proof, Teflon needle packing will not deteriorate with automotive paints. As with all DeVilbiss products, service parts are easily available. A collector's storage tin is included with every DAGR airbrush. DAGR is available from the wide network of DeVilbiss' industrial distributors.



DGR-501G-13 - DAGR Gravity Airbrush .35mm

DeVilbiss DAGR Specification	
Operating Pressure	1.3-3.5 bar (20-50 psi) Maximum
Inlet Pressure	12 bar (175 psi)
Fluid tip	0.35 mm
Cup capacity	9 mls (1/3 fl/oz)
Air hose connection	1/4" NPS (M)
Universal fluid threaded connector	3/8"



# Automatic Spray Guns

## COBRA 1

1 2 4

### DeVilbiss COBRA 1

A completely new design of automatic spray gun, purpose made to provide a long working life in tough working conditions. The gun uses the very latest advances in atomising technology to provide users with a cost effective air atomising spray gun with many unique, patented features and benefits.

- Wide range of TRANS TECH (Compliant/HVLP) and Conventional Air Caps provide the best performance on ALL applications
- Removable ST ST Spray Head for fast and easy maintenance
- Control of Spray Performance and fluid flow is unequalled with the Fluid Adjusting Knob (18 indexing positions).
- Stainless Steel – For waterborne and solvent based materials
- Independent Fan, Atomising and Triggering Air – Vital for Robotic and Machine applications
- Indexing Air Cap for consistent reproduction of spray pattern



Part no: CBA1-522-12

**Fluid Tip/needle size and code [mm]** 0.50, 0.70, 0.85, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2

**Air Cap code**  
COM-430, COM-443, COM-497, COM-500R, COM-505, COM-510, COM-513, COM-522, COM-523, COM-590, COM-591

## COBRA 2

1 2 4

### DeVilbiss COBRA 2

A highly sophisticated automatic gun that can be detached from its mounting block in a few seconds via the easy thumb release mechanism, for fast and easy maintenance and serviceability. This special feature from DeVilbiss dramatically reduces production downtime. COBRA 2 has all of the above COBRA 1 features plus:-

- Fast and easy removal of the gun from the mounting block provides quick and easy replacement or maintenance with Reduced Production Downtime.



Part no: CBA2-513-14

Note: The gun head is available separately.

DeVilbiss COBRA Specification		
Air Inlet Fan and Atomising air connection	1/4 BSP female	
Cylinder operating air connection	1/8 BSP female	
Fluid connection	1/4 BSP female	
Fluid recirculation	1/4 BSP female	
Max Air pressure Fan & Atom	"F" & "A" = 7 Bar	
Min to Max cylinder actuating air	4 to 7 Bar	
Max operating ambient temperature	40°C	
Gun weight	Cobra 1 - 720g	Cobra 2 - 950g with mounting block
Length	Cobra 1 - 135mm	Cobra 2 - 118mm
Width	45mm	
Height (with manual adjusting knobs)	COBRA 1 - 63mm	COBRA 2 - 95mm

**Fluid Tip/needle size and code [mm]** 0.50, 0.60, 0.70, 0.85, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2, 2.8

**Air Cap code**  
COM-430, COM-443, COM-470, COM-497, COM-500R, COM-505, COM-510, COM-513, COM-522, COM-523, COM-590, COM-591

For further information on the Cobra 1 and 2 Automatic spray guns please refer to the Product Euro Flyer and Service Bulletin.

**Example of COBRA 1 & 2 spray gun part numbering:- CBA1-XXX-YY =**  
CBA1 = gun / XXX = Air Cap /  
YY = Nozzle and needle

#### Air cap and tip selection table for COBRA 1

Type	Conventional		HVLP		TRANS-TECH							
	Air Cap No	430	443	497	500R	505	510	513	522	523	590	591
0.5											●	●
0.7											●	●
0.85				●	●	●	●	●	●	●		
1.0	●	●	●		●		●	●	●	●	●	●
1.2	●	●	●		●		●	●	●	●		
1.4	●		●		●		●	●	●	●		
1.6			●	●	●	●	●	●	●	●	●	
1.8	●		●				●	●	●			
2.0					●				●			
2.2							●					

#### Air cap and tip selection table for COBRA 2

Type	Conventional		HVLP		TRANS-TECH								
	Air Cap No	430	443	470	497	500R	505	510	513	522	523	590	591
0.5												●	●
0.6		●	●			●					●		
0.7												●	●
0.85							●	●	●	●	●		
1.0	●	●	●		●		●	●	●	●	●	●	●
1.2	●	●	●		●		●	●	●	●	●		
1.4							●		●	●	●		
1.6							●		●	●	●		
1.8								●	●	●			
2.2									●	●			
2.8									●				

# Automatic Spray Guns

## Viper Tungsten Carbide Tips & Needles

1 2 3 5

### Automatic spray gun for the glaze and ceramic industries

- Easy and fast cleaning is provided by the unique and instant 1/4 turn air cap and fluid tip removal system ("Quick'Up" patented)
- Patented "Bellows" assembly protects and reduces spray gun maintenance
- Completely New air cap range for higher transfer efficiency and durability
- Long life with extended serviceability
- Stainless Steel (hardened) and Tungsten Carbide Fluid tips and needles

DeVilbiss Viper is purpose made for the tough working conditions in the Glaze and Ceramics industries.

Fan and air atomising air connection:	1/4 BSP female
Operating air connection:	1/8 BSP female
Fluid connection:	1/4 BSP female
Gun weight:	620g, length 120mm, width 45mm, height 63mm



**Example of VIPER spray gun part numbering:- VPR-XXX-YYC means...**  
 VPR = gun / XXX = Air Cap /  
 YY = Nozzle and needle / C = hard metal

**NB: Viper is NOT recommended for use with solvent based materials.**

### Air cap and tip selection table (Conventional or TRANS-TECH)

Part no	Nozzle diameter in mm									Technology
	0.7	0.85	1.2	1.4	1.6	1.8	2.0	2.2	2.8	
SPA-100-E31	●	●	●	●	●	●	●			TRANS-TECH
SPA-100-E63						●	●			Conventional
SPA-100-E70								●	●	Conventional

E31 Air Cap (TRANS-TECH) is designed for small to medium flow fluid rate applications with stainless steel "heart" hardened fluid tips. The E31 TRANS-TECH Air Cap is fully compliant with European environmental legislation and is designed to produce the best transfer efficiencies and material savings. E63 and E70 Air Caps (Conventional) are designed for higher fluid flow rates for use on sanitary ware and ceramic tiles etc.



"Bellows System"

## AGN - Automatic spray gun for ceramic and enamel applications

1 5

- Needleless, diaphragm automatic spray gun
- Very Compact and lightweight
- High grade stainless steel and case hardened nitralloy steel Fluid Tips available
- For waterborne application

AGN is a diaphragm operated automatic spray gun for use with ceramic glaze, vitreous enamels, liquid polishing compounds and similar materials. It is ideally designed for continuous applications such as ceramic tile manufacturing. It can also be used with solvent based coatings by fitting a PTFE protective diaphragm.

Air supply atomising	1/4" universal
Diaphragm	6mm push-in tube connector
Coating material supply	3/8" universal
Weight	560g



**Example of AGN spray gun part numbering:- AGN-502-YYZ-XX means...**  
 AGN-502 = gun / YY = Nozzle size /  
 Z = Nozzle material (H = stainless steel,  
 N = nitrided steel) / XX = Air cap

### Air cap selection table

Part no	Nozzle code and diameter in mm											
	G	FX	FZ	FJ	FF	FW	E	EE	EX	DE	D	AC
	0.7	1.1	1.2	1.3	1.4	1.6	1.8	1.8	1.8	2.0	2.2	2.8
AV-4239-30		●		●	●	●	●		●			
AV-4239-43				●	●	●	●		●			
AV-439-58	●	●		●	●	●	●		●			
MB-4039-62HD												●
MB-4039-64HD										●	●	
MB-4039-67HD								●				
MB-4039-78		●	●	●	●		●					
MB-4039-80				●	●	●	●		●			
AV-4239-186						●						
AV-4239-704	●	●		●	●		●					
AV-4239-705	●	●	●	●	●		●					
AV-4239-765	●	●	●	●	●		●					
AV-4239-777			●	●	●		●					
AV-4239-797			●	●	●		●					

## Automatic Spray Guns

### Binks 460 Automatic Spray Gun

① ④

- Aluminium alloy body with plated brass air nozzle
- Stainless steel needle valve and springs
- Gun operation and spray atomisation is controlled from a single air supply
- Control valves for atomisation fan and air flow
- No lag, instant piston controlled "on and off"
- Good range of nozzles for virtually any liquid coatings

The Binks 460 Automatic Spray Gun is a small precision gun designed with accuracy in mind, for ease of fitting to existing automatic and semi-automatic machine. Its small scale dimensions enable the gun to be installed neatly and at close quarters, where the standard range of automatics cannot be accommodated.

#### Air cap selection table (Conventional)

Part no. and code	Nozzle diameter in mm			
	0.5	0.75	1.0	1.5
200831 J92S			●	
200833 J92P	●	●	●	
200838 K92P		●		●



Air and fluid inlet 1/4" BSP  
Fluid passages aluminium

### DeVilbiss AGMD Automatic spray gun

① ② ④

- Exceptional spray performance
- Reduced production down time
- Tried and tested spray application
- Guaranteed repeatability gun set up accurate repeatability
- Low maintenance operator friendly
- Lightweight size and weight
- Sprays all materials industry compatible, St St construction
- TRANS-TECH, HVLP and Conventional Air Cap's

The DeVilbiss AGMD Automatic spray gun with a patented locking device provides a simple and quick change within seconds for servicing and maintenance purposes, this dramatically reduces the production down time. Separate triggering function of fan control air and atomising air. Material circulation and quick flushing through the spray head is possible.

The aircap can be indexed through 90° to provide very positive re-positioning. Sensor inquiry of operating modus (Optional). The AGMD gun is available with a machine adapter or with adapters for all common robots. Suitable for waterborne and solvent based coatings.

Specifications with a machine adapter  
(Example: AGMD + Intermediate Plate AGMD-245-1 + Machine Adapter AGMD-251)

Air cap selection table		
Atom and Fan Air Connection Thread	R 1/8" hose 6 x 8 mm	
Needle Air Connection Thread	R 1/8" hose 4 x 6 mm	
Fluid Connection Thread	R 1/8" hose 6 x 8 mm	
Needle Air Pressure	min. 5.5 bar (53 psi)	
Maximum Air Pressure	9 bar (130 psi)	
Maximum Fluid Pressure	6 bar (87 psi)	
	Complete:	Less Plate + Adapter
Overall Length	116 mm	116 mm
Overall Width	48 mm	46 mm
Overall Height	90 mm	55 mm
Weight	950 gram	665 gram

#### Specification

Part no. XXX	Atomisation Type	Nozzle diameter in mm					
		H 0.5	G 0.7	FX 1.1	FZ 1.2	FF 1.4	E 1.8
AGMD-705	Conventional	●	●	●	●	●	●
AGMD-765	Conventional		●	●	●	●	●
AGMD-765C	Conventional		●	●	●	●	●
AGMD-770	Conventional			●			
AGMD-777	Conventional		●	●	●	●	●
AGMD-797C	Conventional		●	●	●	●	●
AGMD-46C	HVLP			●		●	
AGMD-407-122C	TRANS-TECH			●		●	
AGMD-407-123	TRANS-TECH			●		●	



Part no: AGMD Conventional: AGMD-514  
(followed by fluid tip & set up)

AGMD HVLP/TRANS-TECH: AGMD-515  
(followed by fluid tip & set up)



# Manual Airless and Air Assisted Spray Guns

## AA4400M

### Air Assisted Airless manual spray gun

The all new Binks AA4400M air assisted airless spray gun has been designed with the operator and environment in mind. This new gun will handle the toughest spray jobs in all industrial markets whilst providing the best fit, feel and comfort operators demand. The spray gun is available with either HVLP or Trans-Tech® air caps operating at lower fluid and air pressures than competitors to achieve an exceptionally fine finish with superior paint savings and lower energy consumption.

#### Spray fan pattern is adjustable on the gun...

- Unique Trans-Tech or HVLP air caps provide a "Softer fine spray" for superior finish quality and higher transfer efficiency than competitors
- Lightweight and Operator friendly design with lighter trigger pull tension
- Easy to remove "in-line" needle assembly for quick maintenance
- Adjustable needle packing and "balanced" air valve design
- Solid forged gun body for maximum durability and longer life
- Stainless steel fluid passages with tungsten carbide seats
- Gun handles Solvent and Waterborne coatings as standard
- Standard flat tip AND Twist tip cleaner available with a wide range of tips from .007" (0.18mm) to .035" (0.89mm)

#### Specification

Air and fluid inlet thread	1/4" Universal (M)	Max working pressure	303 bar (4400 psi)
Fluid passageways	Stainless steel	Max air inlet pressure	6.8bar (100psi)
Gun weight	494 gm	Seat	Tungsten Carbide
Gun body	Forged aluminium		

Inline paint filter insert available in two sizes –

\*60 mesh (kit of 5) pt. no. 54-5788-K5 and 100 mesh (kit of 5) pt. no. 54-5789-K5

\*Fitted as standard with all guns.

#### Part Numbers

0909-4400-HF0000†	AA4400M Air assisted airless hand gun with HVLP air cap (Flat tip not included)
0909-4400-LF0000†	AA4400M Air assisted airless hand gun with Trans-Tech air cap (Flat tip not included)
0909-4400-HT0000†	AA4400M Air assisted airless hand gun with Twist Tip cleaner & HVLP air cap (no tip)
0909-4400-LT0000†	AA4400M Air assisted airless hand gun with Twist Tip cleaner & Trans-Tech air cap (no tip)

†Order tip separately.

The full range of premium tips, pre-orifice and twist tips for the AA4400M gun are detailed in the Product Euro Flyer and Service Bulletin.

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AA4400M gun with HVLP air cap (Flat tip not included)  
Part no: 0909-4400-HF0000



AA4400M gun with Twist Tip cleaner and HVLP air cap (no tip)  
Part no: 0909-4400-HT0000

## Binks Airless Spray Guns

### A3500 & A7500 with 2 or 4 finger triggers

#### Choose the gun that is right for you...

- Four finger models offer lower trigger pull and better leverage
- Two finger models provide more control
- 3500 psi packages include: Spray Gun, Tip Guard, (2) 60 mesh Fluid Filters and a Spray Tip
- 7500psi packages include: Spray Gun, Tip Guard, (2) 60 mesh Fluid Filters, (order tip separately)
- Innovative, patent pending valve design eliminates needles and springs
- Tungsten carbide wear parts for long life
- Lower trigger pull and 3-D ergonomic handle reduce fatigue
- Large, long-life filter fills from the inside so it won't collapse
- Long life filter in handle is 20% larger than competitive brands

#### Quick and Easy Disassembly for Cleaning and Maintenance – Less Downtime!

#### Specifications

Maximum Fluid Pressure	3500 psi (241 BAR) or 7500 psi (517BAR)
Gun Body	Forged Aluminium
Fluid Path	Anodised Aluminium
Fluid Inlet	1/4" - 18 NPS(m)
Gun Weight	20.5 oz (580 g)

#### Gun Part Number

#### Description (guns with twist tips)

1108-3500-2*	3500 PSI Max (241 Bar), 2 Finger Trigger Kit includes; gun/tip guard/9-517-35 Tip and 2 x 60 mesh filters
1108-3500-4*	3500 PSI Max (241 Bar), 4 Finger Trigger Kit includes; gun/tip guard/9-517-35 Tip and 2 x 60 mesh filters
1108-7500-2†	7500 PSI Max (517 Bar), 2 Finger Trigger Kit includes; gun/tip guard and 2 x 60 mesh filters
1108-7500-4†	7500 PSI Max (517 Bar), 4 Finger Trigger Kit includes; gun/tip guard and 2 x 60 mesh filters

\*Includes tip 9-517-35

†order tip separately.

The full range of tips and twist tips are detailed in the Product Euro Flyer and Service Bulletin.

④



A wide range of Accessories and Airless tips (Flat and Twist tip) including extensions and H.P. swivels are available for these Binks Airless guns



A3500 gun fitted with twist tip cleaner attachment.  
Part no: 1108-3500-2



A7500 gun fitted with twist tip cleaner attachment.  
Part no: 1108-7500-2