

HVAC | INDUSTRIAL PLANT | FACILITY | FOOD & BEVERAGE

GOODWAY®

INNOVATIVE & TECHNOLOGY-DRIVEN
MAINTENANCE SOLUTIONS



ALL NEW REDESIGNED
TUBE CLEANERS.
SEE PAGE 6 FOR DETAILS

*Proud Recipients of the Presidents'
Excellence in Exporting "E" Award*

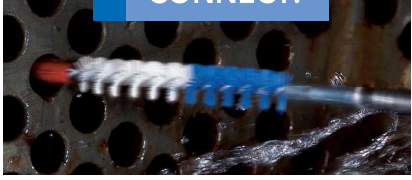
BRUSHES AND TOOLS 6,4 MM TO 25,4 MM



BRUSHES FOR INTERNALLY ENHANCED TUBES



SAVE WITH QUICK CONNECT!



THE "PATRIOT"® DUAL DIAMETER NYLON BRUSH:

The "Patriot" Dual Diameter Nylon Brush is recommended for removing soft deposits (mud, algae, etc.) in straight, ferrous and nonferrous internally enhanced tubes. The large diameter end of this brush cleans into the grooves while its small diameter end cleans the lands of the tube's rifling.

AVAILABLE IN BAGS OF 25

ENN-062-Q: The "Patriot" Dual Diameter Nylon Brush for tubes 15,9 mm I.D.

ENN-090-Q: The "Patriot" Dual Diameter Nylon Brush for tubes 23,8 mm I.D.



DUAL DIAMETER SPIN-GRIT BRUSHES:

The Dual Diameter Spin-Grit Brush is recommended for removing soft and light scale deposits in straight, ferrous and nonferrous internally enhanced tubes. The small diameter end of this brush cleans into the grooves while the large diameter end cleans the lands of the tube's rifling.

AVAILABLE IN BAGS OF 15

ESGB-Q-050: Dual Diameter Spin-Grit Brush for tubes 12,7 mm I.D.

ESGB-Q-062: Dual Diameter Spin-Grit Brush for tubes 15,9 mm I.D.

ESGB-Q-075: Dual Diameter Spin-Grit Brush for tubes 19,1 mm I.D.

ESGB-Q-100: Dual Diameter Spin-Grit Brush for tubes 25,4 mm I.D.

BRUSHES FOR SMOOTH BORE TUBES



6,4 TO 25,4 MM ONLY

BLUE NYLON BRUSHES:

Blue Nylon Brushes are recommended for removing soft deposits (mud, algae, etc.) in straight, ferrous and nonferrous tubes. Brush should be equal to or 1,6 mm smaller than tube I.D.

AVAILABLE IN BAGS OF 15 OR 25 - DEPENDING ON SIZE



GTC-211Q: Blue Nylon Brushes, 6,4 to 25,4 mm (in 1,6 mm increments).



6,4 TO 25,4 MM ONLY

SPIN-GRIT BRUSHES:

Spin-Grit Brushes are recommended for removing soft and light scale deposits in straight, ferrous and nonferrous internally enhanced tubes.

AVAILABLE IN BAGS OF 15

SGB-050: Spin-Grit Brush for tubes 6,4 to 9,5 mm I.D.

SGB-Q-075: Spin-Grit Brush for tubes 11,1 to 15,9 mm I.D.

SGB-Q-100: Spin-Grit Brush for tubes 17,5 to 19,1 mm I.D.

SGB-Q-125: Spin-Grit Brush for tubes 20,6 to 25,4 mm I.D.



TUBE CLEANER BRUSH WITH QUICK CONNECT:

Tube cleaner brush with Quick Connect for removing soft deposits (mud, algae, etc.) in straight, ferrous and nonferrous tubes.

NOTE: 6,4 MM AND 7,9 MM THREADED BRUSHES REQUIRE A #C-1 COUPLING, AND 9,5 MM THREADED BRUSHES REQUIRE A #C-2 COUPLING TO CONNECT TO GTC-701 FLEXIBLE SHAFTS (COUPLINGS SUPPLIED WITH GTC-701 FLEXIBLE SHAFT ORDER).

NOTE: ALL GOODWAY BRUSHES AND BUFFING TOOLS ARE AVAILABLE WITH STANDARD THREADED TOOL COUPLINGS. TO ORDER LEAVE OFF THE "Q" IN THE PART NUMBER.

GTC-240Q-13: Tube Cleaner Brush Assembly w/Quick Connect, 13mm Brush D.

GTC-240Q-16: Tube Cleaner Brush Assembly w/Quick Connect, 16mm Brush D.

GTC-240Q-17.5: Tube Cleaner Brush Assembly w/Quick Connect, 17.5mm Brush D.

GTC-240Q-19: Tube Cleaner Brush Assembly w/Quick Connect, 19mm Brush D.

GTC-240Q-22: Tube Cleaner Brush Assembly w/Quick Connect, 22mm Brush D.

GTC-240Q-25: Tube Cleaner Brush Assembly w/Quick Connect, 25mm Brush D.



BRUSHES AND TOOLS 6,4 MM TO 25,4 MM

BRUSHES FOR SMOOTH BORE TUBES CONTINUED



6,4 TO 25,4 MM ONLY



BRASS BRUSHES:

Brass Brushes are recommended for removing soft and light scale deposits in straight, ferrous and nonferrous tubes. Brush should be equal to or 1,6 mm smaller than tube I.D.

AVAILABLE IN BAGS OF 15

SAVE WITH QUICK CONNECT!



GTC-200BQ: Brass Brushes, 6,4 to 25,4 mm (in 1,6 mm increments).



6,4 TO 25,4 MM ONLY



STAINLESS STEEL BRUSHES:

Stainless Steel Brushes are recommended for removing soft and light scale deposits in straight, ferrous tubes. Brush should be equal to or 1,6 mm smaller than tube I.D.

AVAILABLE IN BAGS OF 15

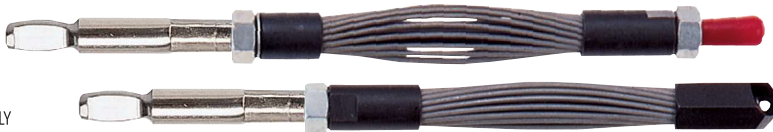


GTC-210Q: Stainless Steel Brushes, 6,4 to 25,4 mm (in 1,6 mm increments).

BUFFING TOOLS



9,5 TO 25,4 MM ONLY



Stainless Steel Wire Buffering Tools are used for removing light to medium scale deposits or for finishing tubes previously "roughed out" with other cleaning tools. They can be used in straight, ferrous and nonferrous tubes. Buffering tools can only be used in a clockwise (forward) direction and cannot be used in internally enhanced tubes. They are adjustable to a 6,4 mm range.

GTC-203: Buffering Tool for tubes 7,9 to 9,5 mm I.D.

GTC-203DT: Same as GTC-203 with drill tip.

GTC-204Q: Buffering Tool for tubes 9,5 to 12,7 mm I.D.

GTC-204QDT: Same as GTC-204Q with drill tip.

GTC-205Q: Buffering Tool for tubes 12,7 to 14,3 mm I.D.

GTC-205QDT: Same as GTC-205Q with drill tip.






GTC-206Q: Buffering Tool for tubes 15,9 to 25,4 mm I.D.

GTC-206QDT: Same as GTC-206Q with drill tip.

GTC-207: Replacement Metal Blades for GTC-203 and GTC-204.






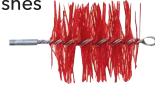



GTC-208A: Replacement Metal Blades for GTC-205.

GTC-208B: Replacement Metal Blades for GTC-206.

ACCESSORY	APPLICATION	PART NO.	SIZES
Adjustable Triangular Scraping Tools 	Removing heavy scale deposits in straight, ferrous tubes. They can only be used in a clockwise (forward) direction and cannot be used in internally enhanced tubes. They are adjustable to a 6,4 mm range.	TST-500 TST-750	Triangular Scraper Tool for tubes 12,7 to 19,1 mm I.D.; Triangular Scraper Tool for tubes 19,1 to 25,4 mm I.D.
Carbide Drills 	Carbide Drills are recommended for cleaning straight, ferrous tubes plugged solidly with deposit.	PTB-025/037/ 043/050/ 056/062/068	6,4 mm, 9,5 mm, 11,1 mm, 12,7 mm, 14,3 mm, 15,9 mm or 17,5 mm (specify size)
Flex-Hone Abrasive Tools 	Flex-Hone Abrasive Tools are light pressure, soft application honing devices for cleaning straight, ferrous tubes. They consist of 180 grit silicon carbide abrasive globules (stones) bonded to high density nylon filaments. Order tool to correspond to tube I.D.	FHT-025/031/037/ 043/050/056/062/ 068/075/087/100	6,4 mm, 7,9 mm, 9,5 mm, 11,1 mm, 12,7 mm, 14,3 mm, 15,9 mm, 17,5 mm, 19,1 mm, 22,2 mm or 25,4 mm (specify size) NOTE: FLEX-HONE ABRASIVE TOOLS ARE NORMALLY USED WITH A WATER FLUSH FOR MAXIMUM LIFE.
Flex Hub Tools 	Flex Hub Tools incorporate centrifugally activated blades for removing hard and heavy deposits in straight, ferrous tubes.	GTC-225 GTC-225A	Flex Hub for straight tubes 12,7 to 25,4 mm I.D.; Replacement Metal Blades for GTC-225 (set of three)
U-Tube Tools 	Consisting of brushes or grinding tips permanently mounted on 460 mm sections of flexible shafts, U-Tube Tools are designed to snake partially through each side of a U-bend, to thoroughly clean from both sides.	CBT-075B; CBT-075S WBT-075B/100B; WBT-075S/100S; GTT-050; GTT-625	Brass Cup Brush Tool for tubes 12,7 to 19,1 mm I.D.; Stainless Steel Cup Brush Tool for tubes 12,7 to 19,1 mm I.D.; Brass Wheel Brush, 19,1 mm or 25,4 mm (specify size); Stainless Steel Wheel Brush, 19,1 mm or 25,4 mm (specify size); Grinding Tip Tool, 12,7 mm; Grinding Tip Tool, 15,9 mm

NOTE: 6,4 MM AND 7,9 MM THREADED BRUSHES REQUIRE A #C-1 COUPLING, AND 9,5 MM THREADED BRUSHES REQUIRE A #C-2 COUPLING TO CONNECT TO GTC-701 FLEXIBLE SHAFTS. (COUPLINGS SUPPLIED WITH GTC-701 FLEXIBLE SHAFT ORDER.) NOTE: ALL GOODWAY BRUSHES AND BUFFING TOOLS ARE AVAILABLE WITH STANDARD THREADED TOOL COUPLINGS. TO ORDER LEAVE OFF THE "Q" IN THE PART NUMBER.

BRUSHES AND TOOLS 25,4 MM AND UP

ACCESSORY	APPLICATION	PART NO.	SIZES
Nylon Brushes 	Removing soft deposits (mud, algae, etc.) in straight, ferrous and nonferrous tubes. Order brush to correspond to tube I.D.	TCB-N	32 mm, 38 mm, 44 mm, 51 mm, 57 mm, 64 mm, 70 mm, 76 mm, 83 mm, 89 mm, 95 mm or 102 mm
Brass Brushes 	Removing soft and light scale deposits in straight, ferrous and nonferrous tubes. Order brush to correspond to tube I.D.	TCB-B	32 mm, 38 mm, 44 mm, 51 mm, 57 mm, 64 mm, 70 mm, 76 mm, 83 mm, 89 mm, 95 mm or 102 mm
Stainless Steel Brushes 	Removing soft and light scale deposits in straight, ferrous tubes. Order brush to correspond to tube I.D.	TCB-S	32 mm, 38 mm, 44 mm, 51 mm, 57 mm, 64 mm, 70 mm, 76 mm, 83 mm, 89 mm, 95 mm, 102 mm, 108 mm, 114 mm, 121 mm or 127 mm
Dual Diameter Spin Grit Brushes 	Removing soft and light scale deposits in straight, ferrous and nonferrous internally enhanced tubes. The small diameter end of this brush cleans into the grooves while the large diameter end cleans the lands of the tube's rifling. Order brush to correspond to tube I.D.	ESGB-Q-100 ESGB-Q-125	25,4 mm 32 mm
Carbon Steel Brushes 	Removing soft and light scale deposits in straight, ferrous tubes. Order brush to correspond to tube I.D. Not recommended for stainless steel tubes.	TCB-C	127 mm, 152 mm, 178 mm, 203 mm, 229 mm, 254 mm, 279 mm, 305 mm, 330 mm or 356 mm
Plastic Brushes 	Removing soft deposits in straight, ferrous and nonferrous tubes. Order brush to correspond to tube I.D.	TCB-P	102 mm, 127 mm, 152 mm, 178 mm, 203 mm, 229 mm, 254 mm, 279 mm, 305 mm, 330 mm or 356 mm
Adjustable Buffing Tool 	Removing light to medium scale deposits or for finishing tubes previously "roughed out" with other cleaning tools. They can be used in straight, ferrous and nonferrous tubes.	GTC-223 GTC-223DT GTC-224	Buffing Tool for tubes 25,4 to 76 mm I.D. Same as GTC-223 with drill tip Replacement Metal Blades for GTC-223
Adjustable Triangular Scraping Tools 	Removing heavy scale deposits in straight, ferrous tubes.	TST-1000 TST-1500 TST-2000 TST-2500	Triangular Scraper Tool for tubes 25,4 to 38 mm I.D. Triangular Scraper Tool for tubes 38 to 51 mm I.D. Triangular Scraper Tool for tubes 51 to 64 mm I.D. Triangular Scraper Tool for tubes 64 to 76 mm I.D.
Carbide Drills 	Carbide Drills are recommended for cleaning straight, ferrous tubes plugged solidly with deposit.	GTC-231D GTC-229 PTB-100	19,1 mm 2,2 mm 25,4 mm

WHEEL BRUSH ASSEMBLIES

To order Wheel Brush Assemblies refer to the table (below) listing the type of tubes to be cleaned – straight or curved.

STRAIGHT TUBE WHEEL BRUSH ASSEMBLIES

Recommended for removing soft and light scale deposits in straight, ferrous tubes. Each assembly consists of four stainless steel wire wheel brushes attached to a universal joint. Brushes should be 3,2 to 6,4 mm smaller than tube I.D.

CURVED TUBE WHEEL BRUSH ASSEMBLIES

Recommended for removing soft and light scale deposits in curved, ferrous tubes. Each assembly consists of a single stainless steel wire wheel brush attached to each end of a universal joint. Brushes should be 6,4 to 9,5 mm smaller than tube I.D.



* NOTE: GTC-706 COUPLING REQUIRED TO CONNECT TO GTC-720, GTC-721, GTC-721G AND GTC-821 FLEXIBLE SHAFTS.

STRAIGHT TUBE WHEEL BRUSH ASSEMBLIES			
STRAIGHT TUBE I.D.	WHEEL BRUSH ASSEMBLY	ACTUAL BRUSH O.D.	REPLACEMENT BRUSHES
29 to 32 mm	WBS-100	25,4 mm	WBR-100
35 to 38 mm	WBS-125	32 mm	WBR-125
41 to 44 mm	WBS-150	38 mm	WBR-150
48 to 51 mm	WBS-175	44 mm	WBR-175
54 to 57 mm	WBS-200	51 mm	WBR-200
60 to 64 mm	WBS-225	57 mm	WBR-225
73 to 76 mm	WBS-275	70 mm	WBR-275
79 to 83 mm	WBS-300	76 mm	WBR-300

CURVED TUBE WHEEL BRUSH ASSEMBLIES			
CURVED TUBE I.D.	WHEEL BRUSH ASSEMBLY	ACTUAL BRUSH O.D.	REPLACEMENT BRUSHES
38 to 41 mm	WBC-125*	32 mm	WBR-125
44 to 48 mm	WBC-150*	38 mm	WBR-150
51 to 54 mm	WBC-175	44 mm	WBR-175
57 to 60 mm	WBC-200	51 mm	WBR-200
64 to 67 mm	WBC-225	57 mm	WBR-225
70 to 73 mm	WBC-250	64 mm	WBR-250
76 to 79 mm	WBC-275	70 mm	WBR-275

NOTE: OTHER SIZES AVAILABLE. CONTACT GOODWAY

BRUSHES AND TOOLS 25,4 MM AND UP

CONE CUTTER ASSEMBLIES

Cone Cutter Assemblies are designed for removing scale deposits from straight and curved, ferrous tubes. Assemblies should be slightly smaller than tube I.D. The innovative design of the cones ensures a thorough cleaning. In watertube boilers, cone cutters are the most effective cleaning tools for all conditions.

SINGLE AND DOUBLE CONE ASSEMBLIES

Assemblies consisting of one or two cone elements are used for cleaning straight tubes 29 to 59 mm I.D. and curved tubes 32 to 60 mm I.D.








DISC CONE ASSEMBLIES

Assemblies consisting of three cone elements are used for cleaning straight tubes 60 to 95 mm I.D. and curved tubes 64 to 102 mm I.D.



SINGLE AND DOUBLE CONE ASSEMBLIES				
STRAIGHT TUBE I.D.	CURVED TUBE I.D.	SINGLE CONE ASSEMBLY	DOUBLE CONE ASSEMBLY	REPLACEMENT CONES
29 to 32 mm	32 to 35 mm	SCA-100	DCA-100	RCO-100
33 to 35 mm	38 to 41 mm	SCA-112	DCA-112	RCO-112
37 to 38 mm	44 to 48 mm	SCA-125	DCA-125	RCO-125
40 to 44 mm	51 to 54 mm	SCA-150	DCA-150	RCO-150
46 to 51 mm	57 to 60 mm	SCA-175	DCA-175	RCO-175
52 to 59 mm	64 to 78 mm	SCA-200	DCA-200	RCO-200

DISC CONE ASSEMBLIES			
STRAIGHT TUBE I.D.	CURVED TUBE I.D.	DISC CONE ASSEMBLY	REPLACEMENT CONES
60 to 71 mm	51 to 78 mm	CDC-101	RCO-100
73 to 84 mm	79 to 92 mm	CDC-102	RCO-100
86 to 95 mm	94 to 102 mm	CDC-103	RCO-112

ACCESSORY	APPLICATION	PART NO.	SIZES
Drill Cone Assemblies 	Cleaning straight, ferrous tubes plugged solidly with deposits. Order assembly to correspond to tube I.D.	DDC-100 DDC-112 DDC-125 DDC-150 DDC-175	25,4 mm 29 mm 32 to 35 mm 38 to 41 mm 44 to 48 mm
Flex-Hone Abrasive Tools 	Flex-Hone Abrasive Tools are light pressure, soft application honing devices for cleaning straight, ferrous tubes. They consist of 180 grit silicon carbide abrasive globules (stones) bonded to high density nylon filaments. Order tool to correspond to tube I.D.	FHT-125/150/ 175/200/225/ 250/275/300	32 mm, 38 mm, 44 mm, 51 mm, 57 mm, 64 mm, 70 mm or 76 mm (specify size) NOTE: FLEX-HONE ABRASIVE TOOLS ARE NORMALLY USED WITH A WATER FLUSH FOR MAXIMUM LIFE.
Flex Hub Tools 	Flex Hub Tools incorporate centrifugally activated blades for removing hard and heavy deposits in straight or curved, ferrous tubes. A drill can be attached to the front of the GTC-227 or GTC-231 Flex Hub to clean severely clogged tubes.	GTC-226 GTC-231 GTC-227 GTC-226A GTC-231A GTC-227A GTC-229 GTC-231D CUJ-002	Flex Hub for straight tubes 22,2 to 38 mm I.D. or curved tubes 25,4 to 44 mm I.D. Flex Hub for straight tubes 38 to 51 mm I.D. or curved tubes 44 to 64 mm I.D. Flex Hub for straight tubes 44 to 102 mm I.D. or curved tubes 64 to 102 mm I.D. Replacement Metal Blades for GTC-226 (set of three) Replacement Metal Blades for GTC-231 (set of three) Replacement Metal Blades for GTC-227 (set of three) Drill to be attached to GTC-227 Flex Hub Drill to be attached to GTC-231 Flex Hub Universal Joint for use with Flex Hubs when minimum tube bend radius is less than 5 x I.D. of the tube (consult factory)
Rigid Arm Flare Cone Tool 	Rigid Arm Flare Cone Tools incorporate centrifugally activated, serrated cones for removing light to heavy scale deposits in straight, ferrous tubes. Use in horizontal or vertical tubes.	FCT-300 FCT-301 RCO-100 CRB-001	Flare Cone Tool for tubes 44 to 102 mm I.D. Flare Cone Tool for tubes 102 to 165 mm I.D. Replacement Cone Replacement Cone Retainer Bolt
Flexible Arm Flare Cone Tool 	The Flexible Arm Flare Cone Tool incorporates centrifugally activated serrated cones for removing light to heavy scale deposits in straight or curved, ferrous tubes. Most effective results are obtained if tube is in vertical position when cleaning.	FCT-600 RCO-100 CRB-001	Flare Cone Tool for tubes 102 to 305 mm I.D. Replacement Cone Replacement Cone Retainer Bolt
Flare Brushes 	Flare Brushes incorporate centrifugally activated wire cables with cobalt tips for light descaling and finishing of straight or curved, ferrous and nonferrous tubes.	FBT-301 FBT-501 FBT-502	Three Strand Flare Brush for tubes 25,4 to 51 mm I.D. Five Strand Flare Brush for tubes 51 to 102 mm I.D. Five Strand Flare Brush for tubes 102 to 203 mm I.D.
Universal Nylon Rod (Flare) Tool 	The Universal Nylon Rod (Flare) Tool incorporates centrifugally activated nylon rods for removing light deposits in straight or curved, ferrous and nonferrous tubes.	UFT-005-8	Universal Nylon Rod (Flare) Tool for tubes 51 to 381 mm I.D.

FLEXIBLE SHAFTS

**SAVE
WITH QUICK
CONNECT!**

GTC-701/GTC-702/GTC-703/GTC-704/GTC-720



FLEXIBLE SHAFT DIMENSIONS

Shaft No.	Casing O.D.	Tool End Thread
701	6,4 mm	8-32 female
702	9,5 mm	1/4-28 female or Quick Connect
703	12,7 mm	1/4-28 female or Quick Connect
704	14,3 mm	1/4-28 female or Quick Connect
720	19,1 mm	1/2-12 female or Quick Connect
721	22,2 mm	1/2-12 female or Quick Connect
721G	22,2 mm	1/2-12 female or Quick Connect
821	22,2 mm	1/2-12 female or Quick Connect

WET / DRY APPLICATIONS

Flexible Shafts (Nylon Casing) for Tubes 6,4 to 9,5 mm I.D.

GTC-701-12: Flexible Shaft, 3,7 m.

GTC-701-25: Flexible Shaft, 7,6 m.

Flexible Shafts (Nylon Casing) for Tubes 11,1 to 12,7 mm I.D.

GTC-702Q-12: Flexible Shaft, 3,7 m.

GTC-702Q-17: Flexible Shaft, 5,2 m.

GTC-702Q-25: Flexible Shaft, 7,6 m.

GTC-702Q-35: Flexible Shaft, 10,7 m.

GTC-702Q-45: Flexible Shaft, 13,7 m.



Flexible Shafts (Nylon Casing) for Tubes 14,3 to 25,4 mm I.D.

GTC-703Q-12: Flexible Shaft, 3,7 m.

GTC-703Q-17: Flexible Shaft, 5,2 m.

GTC-703Q-25: Flexible Shaft, 7,6 m.

GTC-703Q-35: Flexible Shaft, 10,7 m.

GTC-703Q-45: Flexible Shaft, 13,7 m.

GTC-703Q-60: Flexible Shaft, 18,3 m.

GTC-703Q-75: Flexible Shaft, 22,9 m.



Flexible Shafts (Nylon Casing) for Tubes 17,5 to 25,4 mm I.D.

GTC-704Q-12: Flexible Shaft, 3,7 m.

GTC-704Q-17: Flexible Shaft, 5,2 m.

GTC-704Q-25: Flexible Shaft, 7,6 m.

GTC-704Q-35: Flexible Shaft, 10,7 m.

GTC-704Q-45: Flexible Shaft, 13,7 m.

GTC-704Q-60: Flexible Shaft, 18,3 m.

GTC-704Q-75: Flexible Shaft, 22,9 m.



NOTE: GTC-702Q, GTC-703Q AND GTC-704Q FLEXIBLE SHAFTS ARE AVAILABLE WITH STANDARD THREADED TOOL COUPLINGS. TO ORDER LEAVE OFF THE "Q" IN THE PART NUMBER.

NOTE: GTC-703, GTC-703Q, GTC-704 AND GTC-704Q FLEXIBLE SHAFTS FOR USE WITH A RAM-5SF SPEED-FEED TUBE CLEANER REQUIRE A SPECIAL SHAFT STOP. TO ORDER, ADD THE SUFFIX R5 TO THE PART NUMBER.

QUICK CONNECT FITTINGS



FEATURES

- Abrasion Resistant Blue Nylon Casing provides high visibility for safety and a tough exterior to withstand harsh industrial environments.
- Internally Lubricated Shaft Insert molded out of a self lubricating material reduces friction and increases shaft life. Metal Nut provides a secure connection to the drive unit without any concern for breakage.
- Strain Relief System custom molded with a variable thickness allows for a gradual radial bend that is far superior to a spring or coiled wire.
- Shaft Stop which can be positioned anywhere along the shaft lets you know when the end of the tube has been reached (wet cleaning only).
- Quick Connect Couplings allow you to change shafts, brushes and cleaning tools up to 30 times faster than on shafts with threaded connections.
- Galvanized Spring Steel comprised of multiple counter rotated windings provides unmatched performance and long durability.

Flexible Shafts (Nylon Casing) for Tubes 25,4 mm I.D. and Up

GTC-720-15: Flexible Shaft, 4,6 m.

GTC-720-25: Flexible Shaft, 7,6 m.

GTC-720-35: Flexible Shaft, 10,7 m.

GTC-720-50: Flexible Shaft, 15,2 m.



DRY APPLICATIONS

Flexible Shafts (Heat Resistant 149°C Rigid Covered Steel Casing) for Tubes 25,4 mm I.D. and Up

GTC-721G-15: Flexible Shaft, 4,6 m.

GTC-721G-25: Flexible Shaft, 7,6 m.

GTC-721G-35: Flexible Shaft, 10,7 m.

GTC-721G-50: Flexible Shaft, 15,2 m.



Flexible Shafts (High Temperature Tolerant 232°C Stainless Steel Casing) for Tubes 25,4 mm I.D. and Up

GTC-821-15: Flexible Shaft, 4,6 m.

GTC-821-25: Flexible Shaft, 7,6 m.

GTC-821-35: Flexible Shaft, 10,7 m.

GTC-821-50: Flexible Shaft, 15,2 m.



FLEXIBLE SHAFTS



CRIMPING TOOLS FOR FLEXIBLE SHAFT REPAIR

Shaft Cutting and Crimping Press

The Shaft Cutting and Crimping Press is specifically designed for use with Goodway GTC-701, GTC-702 and GTC-703 Flexible Shafts. This unique tool will allow the user to quickly cut and repair flexible shafts in the field without the use of any other tools.

PCC-BASE: Shaft Cutting and Crimping Press with cutting dies.
NOTE: CRIMPING DIES NOT INCLUDED.

Crimping Dies

DIE-SET-701/702/703:

Dies for GTC-701/702/703 Flexible Shafts (specify shaft).

Crimping Block

Goodway's Crimping Block provides the user with quick, convenient methods for performing repairs of flexible shafts in the field. Used properly, each will permanently attach repair couplings, extending the life of the flexible shaft while reducing downtime when a repair is needed.

GTC-CT5: Crimping Block with Punch.

GTC-CTP: Replacement Punch.



FLEXIBLE SHAFT REPAIR COUPLINGS AND KITS

Flexible shaft repair kits include four drive end repair couplings, four thrust washers, four tool end repair couplings, four O-rings, one crimping tool with punch, one flexible shaft lubricator with quick disconnect, and two 0,5 liter bottles of lubricant for flexible shaft lubricator.

Standard Thread Tool End Repair Couplings

717-1/2/3/6: Coupling for GTC-701/702/703/704 Flexible Shafts (specify shaft).

717-4: Coupling for GTC-720/721/721G/821 Flexible Shafts.

Quick Connect Tool End Repair Couplings

717-2Q/3Q/6Q: Coupling for GTC-702Q/703Q/704Q Flexible Shafts with quick connect fittings (specify shaft).

Flexible Shaft Drive End Repair Couplings

713-1/2/3/5: Coupling for GTC 701/702/703/704 Flexible Shafts (specify shaft).

713-6: Coupling for GTC-720/721/721G/821 Flexible Shafts.

Flexible Shaft Repair Kits

REP-701/702/703/704-KIT: Repair Kit for GTC-701/702/703/704 Flexible Shafts (specify shaft).

REP-702Q/703Q/704Q-KIT: Repair Kit for GTC-702Q/703Q/704Q Flexible Shafts (specify shaft).

REP-720-KIT: Repair Kit for GTC-720 Flexible Shafts.

FLEXIBLE SHAFT LUBRICATOR

The Goodway Flexible Shaft Lubricator allows for fast, easy protection of flexible shafts in between uses. Simply fill the lubricator with water-soluble lubricant, connect the flexible shaft and attach a compressed air line [maximum 10,3 BAR - quick connect fits Goodway air line #ASH-B50-A - see page 19. The flow of air and lubricant displaces water and coats the shaft core to protect it from harmful rust and corrosion. Lubricant flushes out with water when shaft is used again.

GSL-705: Flexible Shaft Lubricator with quick connect.

GSL-LU1: Lubricant for flexible shaft lubricator, 0,5 liter bottle.



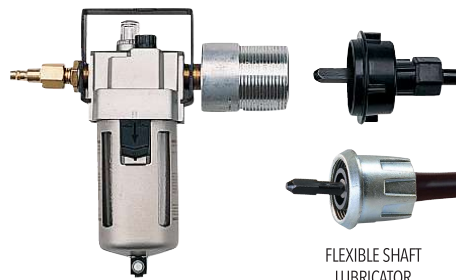
THREADED TOOL END REPAIR COUPLING



QUICK CONNECT TOOL END REPAIR COUPLING



DRIVE END REPAIR COUPLING



FLEXIBLE SHAFT LUBRICATOR



LUBRICANT



FLEXIBLE SHAFT REPAIR KIT



MUST HAVE ADD-ONS FOR BETTER RESULTS



U.S. PATENT NO. 6863116

CHILLER BIB BAG WITH FRAME

Chiller Bib®

The Goodway Chiller Bib captures dirty water and debris during tube cleaning operations, saving time and money on post-job cleanup. The unit consists of a 610 mm wide x 300 mm deep reusable aluminum frame and a disposable poly bag. It features two oversized soft nylon brushes, which slide into the chiller's tubes, to securely fasten the Chiller Bib to the tube sheet. These brushes also slide in channels on the frame, allowing it to move across the tube sheet for optimum positioning. A double edge combination of an EPDM gasket with a strip of underlying nylon bristles

provides for a snug fit against an irregular tube sheet. The poly bag is equipped with a 7,6 m integrated hose to funnel the water and debris to the nearest drain.

9401-3: Chiller Bib Bag (package of three).

BIB-KIT-3: Chiller Bib Frame with three Chiller Bib Bags.

BAG-KIT-10: Chiller Bib Bag (package of ten).

RAM SERVICE KITS



RAM-5DC SERVICE KIT



RAM-PRO SERVICE KIT



RAM-4 SERVICE KIT

RAM PRO SERVICE KIT:

Regular maintenance of the RAM-PRO will ensure it is ready when you need it. This kit, with its detailed instructions, provides all of the parts necessary to keep your machine operating efficiently and reliably.

RAMPRO-SVC-KIT: Kit includes 824 Seal, 825 Bearing, 826 Snap Ring, 803 Screen Washer, 944 Spacer, 979 Drive Shaft, 949 Snap Ring, 935 304,8 mm Water Hose, 9648 Hose Clamp, 9008 Rubber Foot (package of four).

RAM-4 SERVICE KIT:

Bring your RAM-4 back into shape with a rebuild kit including all the major wear items. This includes illustrated instructions, upper and lower bearings, manifold snap ring, seal, shaft/driver, screen washer and even the screws to put everything back together.

RAM4-SVC-KIT: RAM-4 Service Kit includes, 805 O-ring, 824 Seal, 825 Bearing, 826 Snap Ring, 833 Lower Bearing, 873 Shaft/Driver, 803 Screen Washer and HWST-1037-P Cover Screws (package of six).

RAM-5DC SERVICE KIT:

The RAM-5DC Speed-Feed Tube Cleaner is a hard working machine, but after thousands of tubes it could probably use a break. Here's a service kit to get your machine back up to speed. The kit has everything from illustrated instructions, shaft/driver, O-ring, seal, snap ring and bearings to a new set of Speed Feed gears, and even replacement parts for the Speed-Feed gun.

R5-SVC-KIT-3: RAM-5DC Service Kit includes, 805 O-ring, 824 Seal, 825-R5 Bearings (package of ten), 826 Snap Ring, 833-1 Lower Bearing, 2229 Shaft/Driver, 803 Screen Washer, SFG-703 Speed Feed Gears, 2224 Trigger, 2225 Trigger Pads (package of two), 2245 Trigger Pin and HWST-1037-P Cover Screws (package of six).

TOP TOOLS FOR TUBE LEAKS



TUBEGUARD® FEATURES

- Polypropylene construction
- Large openings to keep out larger, tube-clogging debris and to allow the passage of water
- Short profile for less debris buildup on the tube sheet providing for easier cleaning

TUBE GUARDS			
PART NO.	TUBE O.D.		TUBE I.D.
TG-087-18	22,2 mm	18	19,7 mm
TG-087-20	22,2 mm	20	20,4 mm
TG-100-18	25,4 mm	18	22,9 mm
TG-100-20	25,4 mm	20	23,6 mm
TG-112-18	28,6 mm	18	26,1 mm
TG-112-20	28,6 mm	20	26,8 mm
TG-112-22	28,6 mm	22	27,2 mm

BRASS TUBE PLUGS

Got a leaky tube? Plug it with the original solution that always works, a one piece tapered brass tube plug. When installed properly tapered brass tube plugs can stay in place for years. Precision engineered, Goodway Brass Tube Plugs are ideal for a wide range of tube applications, and should be driven into the tube with a hammer just far enough to form a seal. They are manufactured in sizes to cover chiller and heat exchanger tubes 15,9 mm, 19,1 mm, 22,2 mm or 25,4 mm O.D. with BWG ranges 15 to 22.

TP-062S: Brass Tube Plug for tubes 15,9 mm O.D. with BWG ranges 15 to 22.

TP-075S: Brass Tube Plug for tubes 19,1 mm O.D. with BWG ranges 15 to 22.

TP-087S: Brass Tube Plug for tubes 22,2 mm O.D. with BWG ranges 15 to 22.

TP-100S: Brass Tube Plug for tubes 25,4 mm O.D. with BWG ranges 15 to 22.

TUBEGUARD® TUBE FILTERS

Asian clams, Zebra mussels, pipe scale, sticks, rocks, leaves, water line slag and other debris can restrict water flow and reduce heat exchanger efficiency. Goodway TubeGuard tube filters help maintain heat exchanger efficiency by preventing much of these materials from entering the tubes. These durable polypropylene filters feature several large openings, designed to help prevent macro fouling by capturing only the debris that would clog the tubes, allowing the smaller debris to harmlessly pass through the tubes. They have a short profile which provides for less buildup of debris on the tube sheet and easier cleaning.

ADJUSTABLE SILICONE TUBE PLUGS

Designed to conform to almost any inside tube surface, including coated tubes, and designed to not damage tube walls, these adjustable tube plugs provide a versatile option when it becomes necessary to plug tubes. Brass or stainless steel nuts and bolts, vulcanized silicone rubber and high performance plastic make materials compatibility a non issue. Available in single seal configurations for lower pressure applications (less than 4,1 BAR) or double seal configuration for higher pressure applications (up to 10 BAR), these plugs are designed for long life at high temperatures, in fresh or salt water. Installation and removal are easy. Pre-set torque wrenches make proper installation fool-proof. They are manufactured in sizes to cover chiller and heat exchanger tubes 15,9 mm, 19,1 mm, 22,2 mm, 25,4 mm, 29 mm or 32 mm O.D. with BWG ranges 18 to 25.

TP-ADJ-B: Adjustable Silicone Tube Plug with brass nuts and bolt .

TP-ADJ-S: Adjustable Silicone Tube Plug with stainless steel nuts and bolt.

TP-ADJ-TW-SM: T-Handle Torque Wrench for 15,9 mm to 19,1 mm O.D. plugs, preset to 7,7 in-kg; 1.92 N-M (Newton-Meter).

TP-ADJ-TW-LG: T-Handle Torque Wrench for 22,2 mm to 32 mm O.D plugs, preset to 14,9 in-kg; 3,73 N-M.

NOTE: ADDITIONAL STYLE AND SIZE TUBE PLUGS AVAILABLE. CALL FOR PRICES AND QUANTITY DISCOUNTS.

FLEXIBLE FIBERGLASS ROD

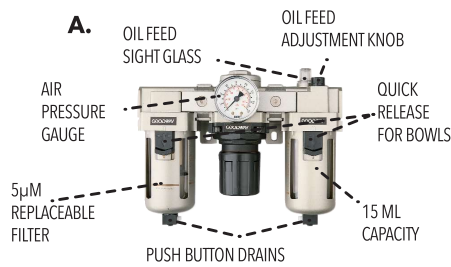
Each Flexible Fiberglass Rod is equipped with a brass tip and is ideal for removing foreign material stuck inside tubes. Custom lengths are available.

QS-ROD-45: Flexible Fiberglass Rod, 13,7 m.

QS-ROD-65: Flexible Fiberglass Rod, 19,8 m.

NOTE: CUSTOM LENGTHS AVAILABLE.

ESSENTIAL ACCESSORIES FOR BETTER PERFORMANCE

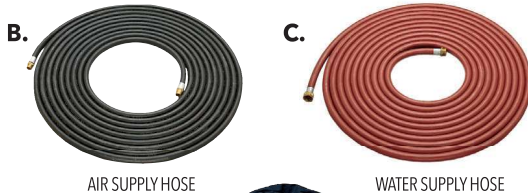


A. AIR LUBRICATOR, FILTER AND REGULATOR

Air-operated equipment will last longer and run more efficiently with proper treatment of the air supply.

NOTE: ALL MODULES HAVE 12,7 MM NPT PORTS. MAXIMUM PRESSURE 10,3 BAR. MAXIMUM TEMPERATURE 60°C. AIR DISPLACEMENT 238 M³/H.

GTC-705-4: Combination Air Lubricator, Filter and Regulator.



B. AIR SUPPLY HOSES

Made from 13 mm I.D. x 15,2 m abrasion resistant black rubber, Goodway Air Supply Hoses provide high CFM airflow to pneumatic machinery for maximum power. They can be used for a variety of industrial applications.

NOTE: MAXIMUM PRESSURE 13,8 BAR.

ASH-B50-A: Air Supply Hose for AWT-100 and GSL-705.

ASH-B50-G: Air Supply Hose for AWT-100X, JCL JetLaunch®, JL JetLoad®, LD-2X2 and QS-300 Quick Shot.

ASH-B50-P: Air Supply Extension Hose for PSM-500.

ASH-B50-E: Air Supply Extension Hose for all hoses listed above.



waterflow than conventional 13 mm I.D. garden hoses. High flow is important for adequate flushing of tubes and for providing sufficient volume to all Goodway equipment. Use with water up to 28°C. Stays flexible to -32°C. It is ideal for any application requiring a high flow, high quality hose.

NOTE: MAXIMUM PRESSURE 10,3 BAR.

WSH-R50: Red Rubber Water Supply Hose.

D. CARRYING BAG

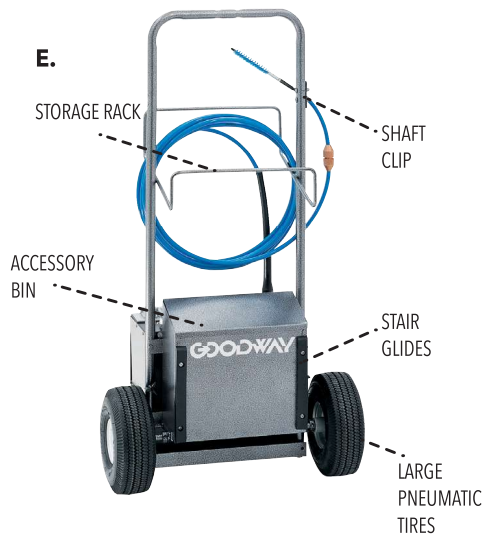
This heavy-duty 660 mm diameter carrying bag will fit all size flexible shafts as well as some basic accessories.

SB-26: Carrying Bag.

E. HEAVY-DUTY CONTRACTOR DOLLY

The Goodway Heavy-Duty Contractor Dolly is designed for use with all RAM-4, RAM-4X, RAM-5SF, RAM-6, AWT-100X and AQ-R1500 Machines. It features increased height, large pneumatic tires and bumpers for easier maneuverability and stair climbing ability, a storage rack for flexible shafts and water hoses, and a large storage bin with drainage for brushes and other accessories.

RAM-DOLLY-C: Heavy-Duty Contractor Dolly.



DRY PICKUP ATTACHMENT

The GTC-DPA can be used with the RAM-4X, RAM-4X2A, AWT-100 and AWT-100X Tube Cleaners for the recovery of dry deposits. After connecting the vacuum the operator simply inserts a special dry application flexible shaft (GTC-721, GTC-721G or GTC-821) through the Dry Pickup Attachment and into the tube. While the operator feeds the rotating shaft through the tube, the cleaning tool breaks up deposits which are immediately pulled into the vacuum drum.

GTC-DPA: Dry Pickup Attachment, including 51 mm x 3,7 m hose with quick connect fitting (order nozzle below).

BFN-152S: Straight Bayonet Nozzle, 460 mm long for tubes 35, 41, 51, 64, 76 or 89 mm O.D.

BFN-152SA: Straight Bayonet Nozzle, 460 mm long for tubes 102 mm O.D.

