

PRODUCT LINE

Fishing & Intervention | Junk Catchers

PRODUCT

Full Flow Reverse Circulation Junk Baskets



OVERVIEW

The Full Flow Reverse Circulation Junk Basket is similar to the Reverse Circulation Junk Basket. The unique difference is the Full Flow Valve Assembly that enables continuous circulation through the center thereby keeping out shale and debris while running in the hole. Premature reverse flow action caused by clogged valves is eliminated. The tool's drain feature eliminates pulling a wet string.

CONSTRUCTION

The Full Flow Reverse Circulation Junk Basket consists of a lifting sub, top sub, barrel, full flow valve assembly, filter, type A mill shoe, and an upper and lower catcher.

A lifting sub is provided for ease of handling and for storage of the steel drop ball. The short fingers of the upper catcher are designed to break the core that has been cut by the mill shoe. The combination of short and long fingers of the lower catcher are designed to trap and retrieve the core and junk. Both catchers are free revolving within the mill shoe, eliminating any breakage of the catcher fingers.

The full flow valve assembly consists of a steel ball, ball seat, ball seat retainer, four shear pins, and O-ring seals.

For component breakdown of the junk catcher assemblies, refer to the Junk Catcher Assemblies tables.

Optional Accessories

Mill shoes for all Full Flow Reverse Circulation Junk Baskets are available in three types: A, B, and C.

Type A Mill Shoe

Conventional hard metal with side wings.

Type B Mill Shoe

Dressed with sintered tungsten carbide.

Type C Mill Shoe

Flat bottomed and dressed with sintered tungsten carbide.

Magnet Inserts

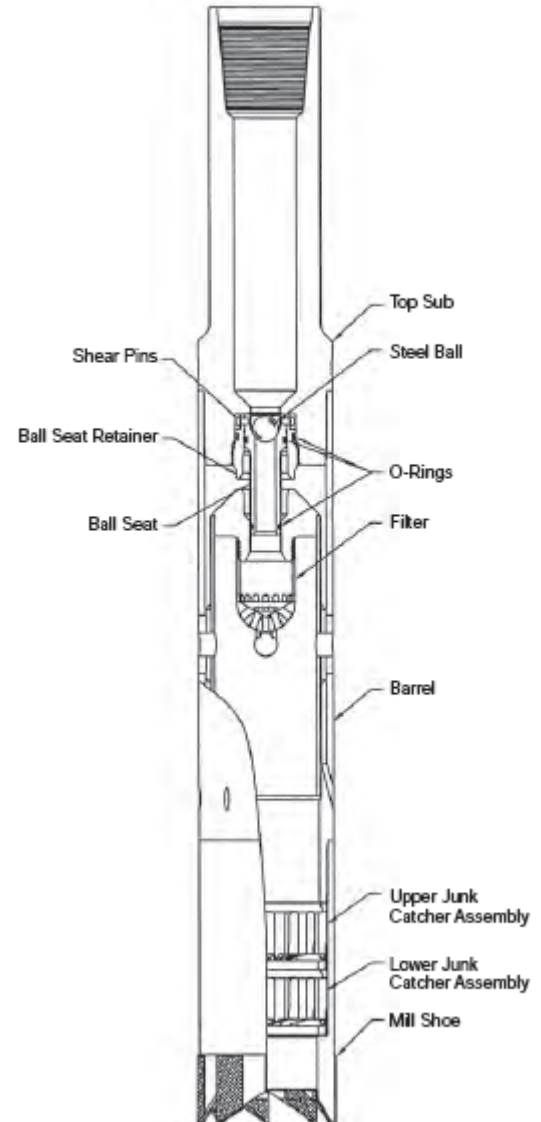
Full Flow Reverse Circulation Junk Baskets can easily be converted to an effective fishing magnet by replacing the upper and lower junk catcher assemblies with a magnet insert.

OPERATION

The Logan Full Flow Reverse Circulation Junk Basket is made up to the bottom of the fishing string and lowered to a point within several feet from the bottom of the hole. Begin circulation to wash the hole. Stop circulation and drop the steel ball. Begin circulation again to shear pins and actuate the valve assembly for reverse circulation. Begin slow rotation while lowering the tool until a 10-inch core has been cut. Stop rotation and circulation and pull the tool from the hole.

When ordering, please specify:

- Complete assembly or part number
- Top Sub connection
- OD and type of shoe



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| Hole Size | | 3-3/4 to 4 | 4-1/8 to 4-1/2 | 4-5/8 to 5 | 6-1/8 to 6-1/2 | 7-1/2 to 8-1/4 | 8-3/8 to 9-1/2 | 9-5/8 to 10-5/8 |
|--------------------------------------|-----------------------|------------------|------------------|------------------|----------------|------------------|------------------|------------------|
| Barrel OD | | 3-5/8 | 4 | 4-1/2 | 5-3/4 | 7 | 7-7/8 | 9-1/8 |
| Maximum Diameter of Fish | | - | 2-1/2 | 3-1/16 | 4-3/8 | 5-1/8 | 6-1/16 | 7-1/16 |
| Complete Assembly | Logan Part No. | 304-363 | 304-400 | 304-450 | 304-575 | 304-700 | 304-788 | 304-913 |
| | Bowen No. | 154583 | 71226 | 70702 | 71127 | 70908 | 709023 | 71198 |
| Ball Seat | Logan Part No. | S1008 | S1000 | S1002 | S1002 | S1003 | S1003 | S1005 |
| | Bowen No. | 154601 | 70699 | 70851 | 70851 | 67354 | 67354 | 67168 |
| Shear Pin | Logan Part No. | S2008 | S2000 | S2000 | S2000 | S2003 | S2003 | S2003 |
| | Bowen No. | 154602 | 70852 | 70852 | 70852 | 67175 | 67175 | 67175 |
| | No. Req'd | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Upper Junk Catcher Assembly (Note 1) | Logan Part No. | 14000-016 | 14000-008 | 14000-009 | 50-051 | 14000-011 | 14000-012 | 14000-013 |
| | Bowen No. | 154611 | 22070-W | 22075-W | 15130-W | 22050-W | 21640-W | 14632-W |
| Lower Junk Catcher Assembly (Note 1) | Logan Part No. | 600-015 | 600-016 | 600-017 | 600-020 | 600-022 | 600-023 | 600-024 |
| | Bowen No. | 21795W | 21855-W | 21780-W | 28349-W | 21725-W | 18725-W | 14633-W |
| Steel Ball | Logan Part No. | D4010 | D4000 | D4002 | D4002 | D4007 | D4007 | D4009 |
| | Bowen No. | 80295 | 6640 | 4453 | 4453 | 2572 | 2572 | 2685 |
| Top Sub | Logan Part No. | S4008 | S4000 | S4001 | S4002 | S4003 | S4004 | S4005 |
| | Bowen No. | 154598 | 71227 | 71104 | 71125 | 70935 | 70926 | 71202 |
| Barrel | Logan Part No. | S5008 | S5000 | S5001 | S5002 | S5003 | S5004 | S5005 |
| | Bowen No. | 154599 | 71230 | 71116 | 71115 | 70911 | 70924 | 71203 |
| Ball Seat Retainer | Logan Part No. | S6008 | S6002 | S6002 | S6002 | S6003 | S6003 | S6003 |
| | Bowen No. | 154600 | 70850 | 70850 | 70850 | 67353 | 67353 | 67167 |
| Filter | Logan Part No. | S7008 | S7002 | S7002 | S7002 | S7003 | S7003 | S7005 |
| | Bowen No. | 154600 | 70850 | 70850 | 70850 | 67353 | 67353 | 67167 |
| Retainer O-Ring Seal | Logan Part No. | 568-225 | 568-331 | 568-331 | 568-331 | 568-243 | 568-243 | 568-248 |
| | Bowen No. | 568225 | 27-34 | 27-34 | 27-34 | 30-21 | 30-21 | 30-26 |
| Upper Seat O-Ring Seal | Logan Part No. | 568-118 | 568-325 | 568-325 | 568-325 | 568-231 | 568-231 | 568-235 |
| | Bowen No. | 568118 | 27-28 | 27-28 | 27-28 | 30-9 | 30-9 | 30-13 |
| Lower Seat O-Ring Seal | Logan Part No. | 568-118 | 568-215 | 568-215 | 568-215 | 568-224 | 568-224 | 568-229 |
| | Bowen No. | 568118 | 27-20 | 27-20 | 27-20 | 30-2 | 30-2 | 30-7 |
| Mill Shoe A (Hard Faced Mill Teeth) | Logan Part No. | S3008-A | S3000-A | S3001-A | S3002-A | S3003-A | S3004-A | S3005-A |
| | Bowen No. | 154612 | 71228 | 70909 | 71124 | 72070 | 72081 | 71199 |

Innovex reserves the right to change or discontinue designs without prior notice.

Note 1: For component breakdown of the junk catcher assemblies, refer to Junk Catcher Assemblies chart.

For type A, B, or C shoes: unless specified, shoes will be furnished with the same O.D. as minimum hole size shown. Finger shoe replacements are furnished with the same O.D. as standard shoe unless otherwise specified.

When ordering, please specify:

- Complete assembly or part number
- Top Sub connection
- O.D. and type of shoe



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|--------------------------|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| Hole Size | | 3-3/4 to 4 | 4-1/8 to 4-1/2 | 4-5/8 to 5 | 6-1/8 to 6-1/2 | 7-1/2 to 8-1/4 | 8-3/8 to 9-1/2 | 9-5/8 to 10-5/8 |
| Barrel OD | | 3-5/8 | 4 | 4-1/2 | 5-3/4 | 7 | 7-7/8 | 9-1/8 |
| Maximum Diameter of Fish | | - | 2-1/2 | 3-1/16 | 4-3/8 | 5-1/8 | 6-1/16 | 7-1/16 |
| Complete Assembly | Logan Part No. | 304-363 | 304-400 | 304-450 | 304-575 | 304-700 | 304-788 | 304-913 |
| | Bowen No. | 154583 | 71226 | 70702 | 71127 | 70908 | 709023 | 71198 |

OPTIONAL COMPONENTS

| | | | | | | | | |
|--|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Type B Mill Shoe (Tungsten Carbide Mill Teeth) | Logan Part No. | S3008-B | S3000-B | S3001-B | S3002-B | S3003-B | S3004-B | S3005-B |
| | Bowen No. | 154612 | 71228 | 70909 | 71124 | 72070 | 72081 | 71199 |
| Type C Mill Shoe (Tungsten Carbide Faced) | Logan Part No. | S3008-C | S3000-C | S3001-C | S3002-C | S3003-C | S3004-C | S3005-C |
| | Bowen No. | 154612 | 71228 | 70909 | 71124 | 72070 | 72081 | 71199 |
| Lifting Sub | Logan Part No. | - | D6000 | D6002 | D2004 | D6006 | D6008 | D6009 |
| | Bowen No. | - | 4568 | 424 | 425 | 1849 | 426 | 427 |
| Pipe Plug | Logan Part No. | - | S9000 | S9000 | S9001 | S9002 | S9003 | S9003 |
| | Bowen No. | - | 61520 | 61520 | 61521 | 61522 | 61523 | 61523 |
| T-Wrench | Logan Part No. | - | S10000 | S10000 | S10000 | S10001 | S10001 | S10002 |
| | Bowen No. | - | 72067 | 72067 | 72067 | 72069 | 72069 | 72068 |
| Finger Shoe | Logan Part No. | - | 600-101 | 600-102 | 600-115 | 600-107 | 600-108 | 600-109 |
| Complete Assembly | Bowen No. | - | 7300 | 4456 | 2738 | 2740 | 2741 | 2742 |
| Body | Logan Part No. | - | D7001 | D7002 | D7015 | D7007 | D7008 | D7009 |
| | Bowen No. | - | 7300-2 | 4456-2 | 2738-2 | 2740-2 | 2741-2 | 2742-2 |
| Replacement | Logan Part No. | - | D10001 | D10002 | D10015 | D10007 | D10008 | D10009 |
| | Bowen No. | - | 7300-1 | 4456-1 | 2738-1 | 2740-1 | 2741-1 | 2742-1 |

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For component breakdown of the junk catcher assemblies, refer to Junk Catcher Assemblies chart.

For type A, B, or C shoes: unless specified, shoes will be furnished with the same O.D. as minimum hole size shown.

Finger shoe replacements are furnished with the same O.D. as standard shoe unless otherwise specified.

When ordering, please specify:

Complete assembly or part number
Top Sub connection
O.D. and type of shoe

Recommended Spare Parts:

2 x Junk Catchers
2 x Mill Shoes
1 x Ball Seat
1 x Ball Seat Retainer

1 x Steel Ball
4 x Valve Repair Kits
2 x Catcher Repair Kits
(for each assembly)



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| | | | | | | | | |
|--------------------------|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| Hole Size | | 3-3/4 to 4 | 4-1/8 to 4-1/2 | 4-5/8 to 5 | 6-1/8 to 6-1/2 | 7-1/2 to 8-1/4 | 8-3/8 to 9-1/2 | 9-5/8 to 10-5/8 |
| Barrel OD | | 3-5/8 | 4 | 4-1/2 | 5-3/4 | 7 | 7-7/8 | 9-1/8 |
| Maximum Diameter of Fish | | - | 2-1/2 | 3-1/16 | 4-3/8 | 5-1/8 | 6-1/16 | 7-1/16 |
| Complete Assembly | Logan Part No. | 304-363 | 304-400 | 304-450 | 304-575 | 304-700 | 304-788 | 304-913 |
| | Bowen No. | 154583 | 71226 | 70702 | 71127 | 70908 | 709023 | 71198 |

OPTIONAL COMPONENTS

| | | | | | | | | |
|--------------------------------|-----------------------|---|--------------------|--------------------|------------------|--------------------|--------------------|--------------------|
| Magnet Inserts | | | | | | | | |
| Complete Assembly | Logan Part No. | - | - | 600-047 | 600-050 | 600-052 | 600-053 | 600-054 |
| | Bowen No. | - | - | 61840 | 61866 | 61876 | 61953 | 61961 |
| Adapter | Logan Part No. | - | - | E4016 | E4018 | E4020 | E4021 | E4022 |
| | Bowen No. | - | - | 61841 | 61867 | 61948 | 61954 | 61966 |
| Magnetic Assembly | Logan Part No. | - | - | 600-069 | 600-071 | 600-073 | 600-074 | 600-075 |
| | Bowen No. | - | - | 61812 | 61816 | 61820 | 61822 | 61826 |
| Repair Kits | | | | | | | | |
| Upper Catcher Repair Kits | Logan Part No. | - | 14000-008RK | 14000-009RK | 600-020RK | 14000-011RK | 14000-012RK | 14000-013RK |
| | Bowen No. | - | 22070-WK | 22075-WK | 28349-WK | 22050-WK | 21640-WK | 14632-WK |
| Lower Catcher Repair 600-024RK | Logan Part No. | - | 600-016RK | 600-017RK | 500-051RK | 600-022RK | 600-023RK | 600-023RK |
| | Bowen No. | - | 21855-WK | 21780-WK | 15130-WK | 21725-WK | 18725-WK | 14633-WK |
| Valve Repair Kits | Logan Part No. | - | 14000-032 | 14000-033 | 14000-034 | 14000-035 | 14000-036 | 14000-037 |
| | Bowen No. | - | 72064 | 72062 | 72063 | 72058 | 72061 | 72065 |

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For component breakdown of the junk catcher assemblies, refer to Junk Catcher Assemblies chart.

For type A, B, or C shoes: unless specified, shoes will be furnished with the same O.D. as minimum hole size shown.

Finger shoe replacements are furnished with the same O.D. as standard shoe unless otherwise specified.

When ordering, please specify:

Complete assembly or part number
Top Sub connection
O.D. and type of shoe

Recommended Spare Parts:

2 x Junk Catchers
2 x Mill Shoes
1 x Ball Seat
1 x Ball Seat Retainer

1 x Steel Ball
4 x Valve Repair Kits
2 x Catcher Repair Kits
(for each assembly)



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Full Flow Reverse Circulation Junk Baskets



| | | 10-3/4 to | 11-3/4 to | | | | |
|--------------------------------------|-----------------------|------------------|------------------|--|--|--|--|
| Hole Size | | 11-5/8 | 12-1/2 | | | | |
| Barrel OD | | 10-1/8 | 11 | | | | |
| Maximum Diameter of Fish | | 7-11/16 | 8-5/16 | | | | |
| Complete Assembly | Logan Part No. | 304-1013 | 304-1100 | | | | |
| | Bowen No. | 71218 | 70910 | | | | |
| Ball Seat | Logan Part No. | S1005 | S1005 | | | | |
| | Bowen No. | 67168 | 67168 | | | | |
| Shear Pin | Logan Part No. | S2003 | S2003 | | | | |
| | Bowen No. | 67175 | 67175 | | | | |
| | No. Req'd | 4 | 4 | | | | |
| Upper Junk Catcher Assembly (Note 1) | Logan Part No. | 14000-014 | 14000-015 | | | | |
| | Bowen No. | 25235-W | 31046-W | | | | |
| Lower Junk Catcher Assembly (Note 1) | Logan Part No. | 500-019 | 600-026 | | | | |
| | Bowen No. | 18945-W | 21760-W | | | | |
| Steel Ball | Logan Part No. | D4009 | D4009 | | | | |
| | Bowen No. | 2665 | 2665 | | | | |
| Top Sub | Logan Part No. | S4006 | S4007 | | | | |
| | Bowen No. | 71219 | 70920 | | | | |
| Barrel | Logan Part No. | S5006 | S5007 | | | | |
| | Bowen No. | 71220 | 70921 | | | | |
| Ball Seat Retainer | Logan Part No. | S6005 | S6005 | | | | |
| | Bowen No. | 67167 | 67167 | | | | |
| Filter | Logan Part No. | S7005 | S7005 | | | | |
| | Bowen No. | 70764 | 70764 | | | | |
| Retainer O-Ring Seal | Logan Part No. | 568-248 | 568-248 | | | | |
| | Bowen No. | 30-26 | 30-26 | | | | |
| Upper Seat O-Ring Seal | Logan Part No. | 568-235 | 568-235 | | | | |
| | Bowen No. | 30-13 | 30-13 | | | | |
| Lower Seat O-Ring Seal | Logan Part No. | 568-229 | 568-229 | | | | |
| | Bowen No. | 30-7 | 30-7 | | | | |
| Mill Shoe A (Hard Faced Mill Teeth) | Logan Part No. | S3006-A | S3007-A | | | | |
| | Bowen No. | 72080 | 12071 | | | | |

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Note 1: For component breakdown of the junk catcher assemblies, refer to Junk Catcher Assemblies chart.

For type A, B, or C shoes: unless specified, shoes will be furnished with the same O.D. as minimum hole size shown. Finger shoe replacements are furnished with the same O.D. as standard shoe unless otherwise specified.

When ordering, please specify:

Complete assembly or part number
 Top Sub connection
 O.D. and type of shoe

Recommended Spare Parts:

2 x Junk Catchers
 2 x Mill Shoes
 1 x Ball Seat
 1 x Ball Seat Retainer

1 x Steel Ball
 4 x Valve Repair Kits
 2 x Catcher Repair Kits
 (for each assembly)

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| | | | | | | | |
|--|-----------------------|---------------------|---------------------|--|--|--|--|
| Hole Size | | 10-3/4 to 11-5/8 | 11-3/4 to 12-1/2 | | | | |
| Barrel OD | | 10-1/8 | 11 | | | | |
| Maximum Diameter of Fish | | 7-11/16 | 8-5/16 | | | | |
| Complete Assembly | Logan Part No. | 304-1013 | 304-1100 | | | | |
| | Bowen No. | 71218 | 70910 | | | | |
| OPTIONAL COMPONENTS | | | | | | | |
| Type B Mill Shoe (Tungsten Carbide Mill Teeth) | Logan Part No. | S3006-B | S3007-B | | | | |
| | Bowen No. | 72080 | 72071 | | | | |
| Type C Mill Shoe (Tungsten Carbide Faced) | Logan Part No. | S3006-C | S3007-C | | | | |
| | Bowen No. | 72080 | 72071 | | | | |
| Lifting Sub | Logan Part No. | D6009 | D6009 | | | | |
| | Bowen No. | 427 | 427 | | | | |
| Pipe Plug | Logan Part No. | S9003 | S9003 | | | | |
| | Bowen No. | 61523 | 61523 | | | | |
| T-Wrench | Logan Part No. | S10002 | S10002 | | | | |
| | Bowen No. | 72068 | 72068 | | | | |
| Finger Shoe | | | | | | | |
| Complete Assembly | Logan Part No. | 600-110 | 600-111 | | | | |
| | Bowen No. | 2743 | 2744 | | | | |
| Body | Logan Part No. | D7010 | D7011 | | | | |
| | Bowen No. | 2743-2 | 2744-2 | | | | |
| Replacement | Logan Part No. | D10010 | D10011 | | | | |
| | Bowen No. | 2743-1 | 2744-1 | | | | |

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Finger shoe replacements are furnished with the same O.D. as standard shoe unless otherwise specified.

When ordering, please specify:

Complete assembly or part number
Top Sub connection
O.D. and type of shoe

Recommended Spare Parts:

2 x Junk Catchers
2 x Mill Shoes
1 x Ball Seat
1 x Ball Seat Retainer

1 x Steel Ball
4 x Valve Repair Kits
2 x Catcher Repair Kits
(for each assembly)

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|----------------------------|-----------------------|-------------------|--------------------|--|--|--|--|
| Hole Size | | 10-3/4 to 11-5/8 | 11-3/4 to 12-1/2 | | | | |
| Barrel OD | | 10-1/8 | 11 | | | | |
| Maximum Diameter of Fish | | 7-11/16 | 8-5/16 | | | | |
| Complete Assembly | 304-1013 | 304-1100 | 304-400 | | | | |
| | 71218 | 70910 | 71226 | | | | |
| OPTIONAL COMPONENTS | | | | | | | |
| Magnet Inserts | | | | | | | |
| Complete Assembly | Logan Part No. | 600-055 | 600-056 | | | | |
| | Bowen No. | 61963 | 61973 | | | | |
| Adapter | Logan Part No. | E4023 | E4024 | | | | |
| | Bowen No. | 61968 | 61974 | | | | |
| Magnetic Assembly | Logan Part No. | 600-075 | 600-076 | | | | |
| | Bowen No. | 61826 | 61828 | | | | |
| Repair Kits | | | | | | | |
| Upper Catcher Repair Kits | Logan Part No. | 14000-14RK | 14000-015RK | | | | |
| | Bowen No. | 25235-WK | 31046-WK | | | | |
| Lower Catcher Repair Kits | Logan Part No. | 500-019RK | 600-026RK | | | | |
| | Bowen No. | 18945-WK | 21760-WK | | | | |
| Valve Repair Kits | Logan Part No. | 14000-038 | 14000-039 | | | | |
| | Bowen No. | 72059 | 72060 | | | | |

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When ordering, please specify:

Complete assembly or part number
 Top Sub connection
 O.D. and type of shoe

Recommended Spare Parts:

2 x Junk Catchers
 2 x Mill Shoes
 1 x Ball Seat
 1 x Ball Seat Retainer
 1 x Steel Ball
 4 x Valve Repair Kits
 2 x Catcher Repair Kits
 (for each assembly)

