





Hon'ble President of India Mr. Giani Zail Singh awarding India's Prestigious National Award to the founder of Autobahn Industries.

## **Company Profile**

Autobahn Industries (ABI) is a globally recognized integrated Designing & Manufacturing company, renowned for its quality products and services. Established in 1970 in Jodhpur, Rajasthan, ABI specializes in designing, manufacturing, and supplying various Rig Floor Equipment, Handling Tools, and Solid Control Equipment for the Oil and Gas Industry. Our commitment to innovation and excellence has earned us the prestigious "National Award" from the Government of India, presented by the former Honourable President of India.

With over 54 years of experience, ABI has built a strong reputation for delivering high-quality, safe products. Our dedicated R&D and Designing Division, staffed by qualified and experienced engineers, continually innovates to ensure our products meet the latest international standards and safety norms. We are a trusted supplier to major government and private oil and gas companies in India. We have a robust export market that includes the USA, UAE, Russia, Saudi Arabia, Oman, Germany, Norway, and Vietnam, among others.

Our vision is to be the most trusted provider of Tubular Handling Tools and Separation Solutions in the Oil & Gas Industry, offering the safest and highest quality products with prompt service. Our authenticity and commitment to quality are reflected in our extensive product range, which is continually updated to incorporate the latest technological advancements.

ABI boasts a state-of-the-art infrastructure, including modern automatic manufacturing facilities equipped with world-class CNC machines, ensuring high accuracy and precision while minimizing production lead time. Our fully equipped laboratory provides comprehensive in-house testing to ensure product quality and safety at every manufacturing stage.



Our decades of experience, dedicated service, and advanced capabilities enable us to design and manufacture superior products that meet the rigorous demands of the Oil and Gas Industry while adhering to stringent safety measures. Some of our advanced production machinery includes:

- 1. CNC Vertical Turning Centre (Doosan, South Korea)
- 2. HMC Horizontal Machining Center (Doosan, South Korea)
- 3. CNC Vertical Machine Centre (Doosan, South Korea)
- 4. CNC Turn Lathe Machines

Autobahn Industries holds several prestigious licenses and certifications, including:

- 1. API 7K license for Rotary Bushings, Rotary Slips, Manual Tongs, Spiders, and Safety Clamps since 2001
- 2. ISO 9001 certification

Our products and services are the result of decades of experience, committed management, and the dedicated efforts of our skilled workforce, providing a powerful platform for designing and manufacturing quality products tailored to the needs of the Oil and Gas Industry.

## Autobahn's Quality Policy

We are committed to designing, manufacturing, and supplying quality equipment and spare parts to our customers, strictly adhering to API specifications to enhance customer satisfaction. Our commitments include:

- 1. Designing and manufacturing equipment that meets and exceeds API-7K Specification requirements.
- 2. Delivering top-notch quality products promptly to clients.
- 3. Continually improving our products, processes, and systems through a team of competent personnel.
- 4. Ensuring rigorous quality control measures are in place at every stage of production to guarantee the highest standards.
- 5. Investing in advanced technology and equipment to maintain precision and reliability in our manufacturing processes.

# "Your Trust Our Commitment"



## **CNC MACHINING FACILITIES**











## **HEAT TREATMENT FACILITIES**







## **QUALITY CONTROL AND TESTING FACILITIES**

Our quality control and testing facilities are integral to our commitment to excellence. At Autobahn Industries, we ensure that every product meets the highest standards of quality and safety through rigorous testing and inspection at every stage of manufacturing. Our state-of-the-art laboratory is equipped with the latest technology for comprehensive in-house testing, ensuring our products meet international quality standards and HSE guidelines. We are dedicated to rigorously testing all products throughout the manufacturing process to guarantee their quality and safety.

Some of the tests currently conducted during manufacturing and on finished products include:

- 1. Spectrometer for chemical analysis
- 2. Material structural analysis test
- 3. Magnetic particle inspection
- 4. Ultrasonic testing
- 5. Radiographic testing
- 6. Hardness testing
- 7. Impact testing
- 8. Tensile testing
- 9. Dimensional and visual inspection at every manufacturing stage
- 10. Load Testing on a hydraulic press up to 750 sTon for Master Bushings, Rotary Slips, and Spiders
- 11. Hydraulic test bench with a plotter for testing up to 200,000 ft. lbs for Manual Tongs







Metallurgical Testing



Geometrical Inspection



Metrology Scanning Solution



Material Structural Analysis



Impact Testing



Proof Load Testing



## **API-7K CERTIFICATE**



## Proud Holder of API-7K License continuously for more than 24 years



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#### MPCH Master Bushing for National, Oilwell & EMSCO Rotary Table

Autobahn Industries is an API-approved manufacturer with a valid API-7K license for the past 23 years, specializing in Rotary Bushings (Master Bushings). Our MPCH Master Bushings are designed for rotary tables sized 37.1/2" to 49.1/2", adhering strictly to API-7K Specifications (Latest Edition) for drilling operations.

The MPCH is a pin-driven hinged Master Bushing. The Master Bushing can be configured to fit in Rotary Tables of various manufacturers and configurations on special request. The MPCH will be delivered based on customer order. With the help of Insert Bowls, it is capable of handling Drill Collar, Tubing, and Casing ranging from 2.3/8" to 13.3/8". The standard delivery with Insert Bowl No.3 is recommended by Autobahn Industries, while the optional Insert Bowl No.1 and No.2 are designed to enhance the pipe, Drill Collar, Tubing, and casing handling range.



#### Part List of ABMB 3750, ABMB 3750-SQ & ABMB 3750-E:

(All the spare parts are interchangeable with Varco MPCH or other Master Bushings that comply with API standards.)

| S.No. | Description                                       | Qty<br>Per Unit | Identical Varco<br>P/N For National | ABI P/N<br>For National | ABI P/N<br>For Oilwell | ABI P/N<br>For EMSCO |
|-------|---|-----------------|-------------------------------------|-------------------------|------------------------|----------------------|
| 1.    | Bare body segment                                 | 1 No.           | 6601-1                              | 3710                    | 3710-SQ                | 3710-E               |
| 2.    | Hinge Pin-Removable (with handle)                 | 1 No.           | 6604                                | 3711                    | 3711-SQ                | 3711-E               |
| 3.    | Hinge Pin Retainer                                | 1 No.           | 6606                                | 3711-A                  | 3711-A-SQ              | 3711-A-E             |
| 4.    | Hinge Pin-Stationary (with retainer)              | 1 No.           | 6605                                | 3712                    | 3712-SQ                | 3712-E               |
| 5.    | Bowl lock Assembly                                | 2 No.           | -                                   | 3714                    | 3714-SQ                | 3714-E               |
| 6.    | Eccentric Pin                                     | 2 No.           | 1014                                | 3714-A                  | 3714-A-SQ              | 3714-A-E             |
| 7.    | Eccentric Pin Lock                                | 2 No.           | 1016                                | 3714-B                  | 3714-B-SQ              | 3714-B-E             |
| 8.    | Eccentric Pin Retainer                            | 2 No.           | 50106-22                            | 3714-C                  | 3714-C-SQ              | 3714-С-Е             |
| 9.    | Drive Hole Bushing                                | 4 No.           | 3699                                | 3715                    | 3715-SQ                | 3715-E               |
| 10.   | Lifting Sling for Master Bushing (Four Hook Type) | 1 No.           | 6699                                | 3716                    | 3716-SQ                | 3716-E               |
| 11.   | Bit Breaker Adapter Plate                         | 1 No.           | 1816                                | 3717                    | 3717-SQ                | 3717-Е               |
| 12.   | Insert Bowl No: 1 For 11.3/4" to 13.3/8" tubular  | 1 No.           | 6610                                | 3751                    | 3751-SQ                | 3751-E               |
| 13.   | Insert Bowl No: 2 For 9.5/8" to 10.3/4" tubular   | 1 No.           | 6609                                | 3752                    | 3752-SQ                | 3752-E               |
| 14.   | Insert Bowl No: 3 For 2.3/8" to 8.5/8" tubular    | 1 No.           | 6608                                | 3753                    | 3753-SQ                | 3753-E               |
| 15.   | Lifting Sling for Bowls (Two Hook Type)           | 1 No.           | -                                   | 3754                    | 3754                   | 3754                 |



## SOLID BODY PIN DRIVE MASTER BUSHING

#### Model: ABMB 2750-PS for 27.1/2" Rotary Table & ABMB 2050-PS for 20.1/2" Rotary Table

The Autobahn Industries Solid Body Pin Drive Master Bushing is designed for 20.1/2" and 27.1/2" Rotary Tables, adhering to the latest API-7K Specification. This Pin Drive Master Bushing allows the use of Insert Bowls in the Rotary Table while the Kelly Bushing is in operation.

With the appropriate Insert Bowl, the Master Bushing can support a maximum string load of 500 tons. Insert Bowls offer superior slip backup and are engineered to handle heavier tubular strings without the risk of string failure due to bottlenecking. These Insert Bowls, also compliant with API-7K specifications, can accommodate tubular sizes ranging from 2.3/8" to 13.3/8".

The Model ABMB2750-PS Master Bushings are equipped with bowl locks to securely hold the Insert Bowls in place.





27.1/2" Solid Type Master Bushing Model : ABMB 2750-PS Figure No. 5

20.1/2" Solid Type Master Bushing Model : ABMB 2050-PS Figure No. 6

#### Part List of Solid Body Pin Drive Master Bushing:

(Interchangeable with Varco MSPC or any other Master Bushings that comply with API-7K standard)

| S.No. | Description                                     | Qty.<br>Per Unit | P/N For<br>ABMB 2750-PS | P/N For<br>ABMB 2050-PS |
|-------|---|------------------|-------------------------|-------------------------|
| 1.    | Bare Body                                       | 1 No.            | 2751-PS                 | 2051-PS                 |
| 2.    | Bowl Lock Assembly                              | 2 No.            | 2752-PS                 | 2052-PS                 |
| 3.    | Drive Hole Bushing                              | 4 No.            | 2753-PS                 | 2053-PS                 |
| 4.    | Lifting Sling (Two Hooks Type)                  | 1 No.            | 2754-PS                 | 2054-PS                 |
| 5.    | Bit Breaker Adapter Plate                       | 1 No.            | 2755-PS                 | 2055-PS                 |
| 6.    | Insert Bowl No.1 For 11.3/4" to 13.3/8" Tubular | 1 No.            | 2756-PS                 | -                       |
| 7.    | Insert Bowl No.2 For 9.5/8" to 10.3/4" Tubular  | 1 No.            | 2757-PS                 | 2057-PS                 |
| 8.    | Insert Bowl No.3 For 2.3/8" to 8.5/8" Tubular   | 1 No.            | 2758-PS                 | 2058-PS                 |

## SOLID BODY SQUARE DRIVE MASTER BUSHING

#### Model: ABMB 2750-SS for 27.1/2" Rotary Table & ABMB 2050-SS for 20.1/2" Rotary Table

The Square Drive Master Bushing, compliant with API-7K specifications, is ideal for drilling operations up to 10,000 feet where a large slip backup area is not required. The Solid Outer Body is engineered to support all transverse loads and provides suitable backing for Split Insert Bowls, even during active drilling with the Rotary Table.

Model ABMB 2050-SS accommodates tubular sizes ranging from 2.3/8" to 10.3/4" OD, while Model ABMB 2750-SS handles tubular sizes from 2.3/8" to 13.3/8" OD, utilizing Insert Bowls.

The following are the recommended accessories for these Master Bushings:

1. Bit Breaker Adapter Plate. 2. Lifting sling. 3. Insert Bowl No. 1, 2 & 3

#### Part List of Solid Body Square Drive Master Bushing:

(Interchangeable with Varco MSS or any other Master Bushings that comply with API-7K standard)

| S.No. | Description                                     | Qty.<br>Per Unit | P/N For<br>ABMB 2750-SS | P/N For<br>ABMB 2050-SS |
|-------|---|------------------|-------------------------|-------------------------|
| 1.    | Bare Body                                       | 1 No.            | 2751-SS                 | 2051-SS                 |
| 2.    | Bowl Lock Assembly                              | 2 No.            | 2752-SS                 | 2052-SS                 |
| 3.    | Lifting Sling (Two Hooks Type)                  | 1 No.            | 2754-SS                 | 2054-SS                 |
| 4.    | Insert Bowl No.1 For 11.3/4" to 13.3/8" Tubular | 1 No.            | 2756-SS                 | -                       |
| 5.    | Insert Bowl No.2 For 9.5/8" to 10.3/4" Tubular  | 1 No.            | 2757-SS                 | 2057-SS                 |
| 6.    | Insert Bowl No.3 For 2.3/8" to 8.5/8" Tubular   | 1 No.            | 2758-SS                 | 2058-SS                 |

Note: In addition to the standard models, Master Bushings can also be custom-made to meet specific customer requirements upon request.



## SPLIT TYPE PIN DRIVE MASTER BUSHING

#### Model: ABMB 2750-PSP-3

Autobahn Industries manufactures Split Type Pin Drive Master Bushings designed for 27.1/2" Rotary Tables, adhering strictly to the latest API-7K specifications. We hold a valid API-7K Monogram for our Master Bushings. These Master Bushings are compatible with Insert Bowls No. 1, 2, and 3, allowing them to handle various sizes of tubulars, including Drill Collars, Tubing, and Casing ranging from 2.3/8" to 13.3/8".

#### The advantages of the Split Type Pin Drive Master Bushing include:

- 1. The Master Bushing can be easily removed to allow large-diameter bits and pipe connections to pass through.
- 2. The BOP (Blowout Preventer) can be easily lifted by removing the Master Bushing from the Rotary Table.
- 3. The Master Bushing can be securely locked into the Rotary Table, with locks that firmly hold the Insert Bowls in place.

The following are the recommended accessories for this Master Bushing:

- 1. Bit Breaker Adapter Plate.
- 2. Liftingsling.
- 3. Insert Bowl No.1,2 & 3



27.1/2" Split Master Bushing Figure No. 7



#### Part List of Split Type Pin Drive Master Bushing:

| S.No. | Description                                     | Qty.<br>Per Unit | P/N        |
|-------|---|------------------|------------|
| 1.    | Bare Body                                       | 1 No.            | 2751-PSP-3 |
| 2.    | Bowl Lock Assembly                              | 2 No.            | 2752-PSP-3 |
| 3.    | Drive Hole Bushing                              | 4 No.            | 2753-PSP-3 |
| 4.    | Lifting Sling (Two Hooks Type)                  | 1 No.            | 2754-PSP-3 |
| 5.    | Bit Breaker Adapter Plate                       | 1 No.            | 2755-PSP-3 |
| 6.    | Insert Bowl No.1 For 11.3/4" to 13.3/8" Tubular | 1 No.            | 2756-PSP-3 |
| 7.    | Insert Bowl No.2 For 9.5/8" to 10.3/4" Tubular  | 1 No.            | 2757-PSP-3 |
| 8.    | Insert Bowl No.3 For 2.3/8" to 8.5/8" Tubular   | 1 No.            | 2758-PSP-3 |



## MEDIUM DUTY SPLIT TYPE PIN DRIVE MASTER BUSHING - BOWL 3 TAPER DESIGN

#### Model: ABMB 2750-PSP for 27.1/2" RT ABMB 1750-PSP for 17.1/2" RT

ABMB 2050-PSP for 20.1/2" RT ABMB 2750-SSP for 27.1/2" RT

These Master Bushings are designed for shallow to medium-depth wells, compatible with 17.1/2", 20.1/2", and 27.1/2" Rotary Tables. Manufactured in strict accordance with API-7K specifications, the PSP (Pin Drive Split Type) and SSP (Square Drive Split Type) models feature a standard taper of Insert Bowl No. 3, accommodating tubular sizes from 2.3/8" to 8.5/8". These models also allow the use of extra-long SDXL slips for handling heavier loads.

The 2.1/2" rise in taper facilitates easier slip handling, uniformly distributing the load within the Master Bushing and reducing wear and tear on the table bore. This design provides 50% more slip support, enhancing load management capability. The 27.1/2" Master Bushing is engineered to handle string loads up to 500 tons.



27.1/2" Split & Inbuilt Taper Master Bushing Model : ABMB 2750-PSP Figure No. 9



20.1/2" Split & Inbuilt Taper Master Bushing Model : ABMB 2050-PSP Figure No. 10

The following are the recommended accessories for these Master Bushings:

- 1. Bit Breaker Adapter Plate.
- 2. Lifting sling.

#### Part List of Split Type Pin Drive Master Bushing:

(Interchangeable with Varco MSP & MDSP or other Master Bushing of API standard)

| S.<br>No. | Description                    | Qty.<br>Per Unit | P/N For<br>ABMB 2750-PSP | P/N For<br>ABMB 2050-PSP | P/N For<br>ABMB 1750-PSP |
|-----------|--------------------------------|------------------|--------------------------|--------------------------|--------------------------|
| 1.        | Bare Body                      | 1 No.            | 2751-PSP                 | 2051-PSP                 | 1751-PSP                 |
| 2.        | Drive Hole Bushing             | 4 No.            | 2753-PSP                 | 2053-PSP                 | -                        |
| 3.        | Lifting Sling (Two Hooks Type) | 1 No.            | 2754-PSP                 | 2054-PSP                 | 1754-PSP                 |
| 4.        | Bit Breaker Adapter Plate      | 1 No.            | 2755-PSP                 | 2055-PSP                 | 1755-PSP                 |

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## MEDIUM DUTY SPLIT TYPE SQUARE DRIVE MASTER BUSHING

Model : ABMB 2750-SSP for 27.1/2" Rotary Table

#### Part List of Split Type Square Drive Master Bushing:

| S.<br>No. | Description                    | Qty.<br>Per Unit | P/N      |
|-----------|--------------------------------|------------------|----------|
| 1.        | Bare Body                      | 1 No.            | 2751-SSP |
| 2.        | Lifting Sling (Two Hooks Type) | 1 No.            | 2754-SSP |

Note: In addition to the standard models, Master Bushings can also be custom-made to meet specific customer requirements upon request.



27.1/2" Split & Inbuilt Taper Master Bushing Figure No. 11



## CASING BUSHINGS AND INSERT BOWLS

When the casing is inserted into a drilled hole, the casing string must align precisely with the hole's center. This alignment ensures that cement slurry is evenly distributed around the casing, promoting effective bonding between the casing and the borehole. Casing Bushings are employed to ensure that the casing being run maintains perfect alignment with the center of the hole.

Casing Bushings are available in either solid or split types, and all variants can accommodate bowls of different sizes to cater to a wide range of casing dimensions. They are directly installed into the Rotary Table, and by using CMS-XL or CP-S slips, the casing string can be easily rotated during cementing operations. Casing Bushings are designed to handle string loads of up to 500 tons.



Recommended Accessories with Casing Bushing are: 1. Lifting Sling 2. Insert Bowl No. 1,2,3 & 16 (Optional) Note: Casing Bushings can also be custom-made according to specific customer requirements upon request.



## **ADAPTER RING**

Autobahn produces a diverse selection of Rotary Adapter Rings or Reducer Bushings designed for 75.1/2", 60.1/2", 49.1/2" and 37.1/2" Rotary Tables. These adapter rings serve the purpose of reducing the rotary bore size. They come in both solid and hinged designs, offering versatility in application. Additionally, the configurations of these rings can vary from one rotary maker to another or even from one brand to a different brand (e.g., Oilwell to National). Autobahn is API-7K Certified for Rotary Bushings which includes Adapter Rings and these Adapter Rings are made strictly following the latest edition of API-7K specifications.



Adapter Ring Figure No. 16

#### Types of Adapter Rings:

| S.No. | Reducing Size                                    | Туре   | Rated Load<br>(sTon) | Part No. |
|-------|--|--------|----------------------|----------|
| 1.    | NOV 75.1/2" to NOV 60.1/2" RT                    | Hinged | 1500                 | 6001     |
| 2.    | NOV 60.1/2" to National 49.1/2" RT               | Hinged | 1500                 | 6002     |
| 3.    | From National 49.1/2" to National 37.1/2" RT     | Hinged | 1500                 | 6003     |
| 4.    | From National 49.1/2" to National 37.1/2" RT     | Solid  | 1500                 | 6004     |
| 5.    | From National 37.1/2" to API Standard 27.1/2" RT | Hinged | 750                  | 6005     |
| 6.    | From Oilwell 37.1/2" to API Standard 27.1/2" RT  | Hinged | 750                  | 6006     |
| 7.    | From EMSCO 37.1/2" to API Standard 27.1/2" RT    | Hinged | 750                  | 6007     |

Note: Customized Adapter Rings are also available upon request.

## WEAR GUIDE ASSEMBLY

The Wear Guide Assembly is essential for minimizing wear and tear on Master Bushings and Insert Bowls during drilling operations, particularly when using a top drive. It plays a crucial role in protecting the drilling string by centralizing it, thereby reducing the risk of damage to the insert bowls throughout the drilling or tripping process.

This assembly is specifically designed to be mounted directly into the pin drive locations on 27.1/2" & 37.1/2" Master Bushings. With the assistance of Insert Sets, the Wear Guide Assembly can accommodate tubular sizes ranging from 3.1/2" to 6.5/8".

#### Technical Specification:

| S.No. | Pipe Size     | Part No. |
|-------|---------------|----------|
| 1.    | 3.1/2"-5"     | 65850    |
| 2.    | 5.1/2"-6.5/8" | 65851    |



Wear Guide Assembly Figure No. 17



### **KELLY BUSHINGS**

#### Kelly Bushing Pin Drive

## Model: 27 PDHD and 20 PDHD

Autobahn Industries is an API-approved manufacturer for Rotary Bushings (which includes Kelly Bushings), with a valid API-7K License for the past 23 years, we ensure compliance with industry standards.

Our Kelly Bushing models, 27PDHD or 20PDHD, are manufactured following API-7K specifications. They are designed for pin drive Master Bushings, suitable for Rotary Table sizes ranging from 27.1/2" to 49.1/2", Master Bushing with 25.3/4" pin circle 27PDHD of 23" pin circle, 20PDHD. The Kelly Bushing is utilized in drilling operations, particularly in high torque conditions, both offshore and onshore. It effectively handles Square or Hexagonal Kelly sizes ranging from 3" to 6".

The Kelly Bushing is supplied with the following components:

- 1. Roller Assembly (Pre-fitted)
- 2. Wiper Assembly (Pre-fitted)
- 3. Wrench
- Wear Gauge 4.



#### Model: SDHD

The Kelly Bushing Model SDHD conforms to API-7K specifications for Square Drive Master Bushings, designed for Rotary Table sizes ranging from 27.1/2" to 49.1/2". It is utilized in drilling operations, both Offshore and Onshore, particularly in high torque conditions, and is capable of handling Square or Hexagonal Kelly sizes from 3" to 6".

The Kelly Bushing is supplied with the following components:

- 1. Roller Assembly (Pre-fitted)
- 2. Wiper Assembly (Pre-fitted)
- 3. Wrench
- 4. Wear Gauge

Note : Roller Assembly is compatible with 27 PDHD, 20 PDHD, and SDHD models.

(All the parts are interchangeable with Varco 27HDP, 20HDP, or HDS models, as well as other Kelly bushings compliant with API-7K standards)

## **Optional Pin Lock Assembly**

The Optional Drive Pin Lock Assembly secures the Kelly Bushing within the Master Bushing, particularly useful for offshore drilling operations employing motion compensators. These lock assemblies are specifically designed for the 27 PDHD series Bushing. To order with an assembly, simply add "L" to the part number of the unit.

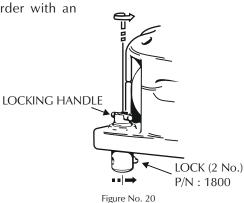
| Particular       | P/N for<br>27 PDHD Model | Identical Varco<br>P/N |  |  |  |  |
|------------------|--------------------------|------------------------|--|--|--|--|
| Lock Assembly    | 2721                     | 3695                   |  |  |  |  |
| Drive Pin        | 2721-A                   | 3697                   |  |  |  |  |
| Locking Pin      | 2721-B                   | 3698                   |  |  |  |  |
| Eccentric Pin    | 2721-C                   | 3696                   |  |  |  |  |
| Drive Pin Washer | 2721-D                   | 1506                   |  |  |  |  |

For Lock Type Kelly Bushing:

Pin Drive Kelly Bushing Figure No. 18



Square Drive Kelly Bushing Figure No. 19





## Kelly Bushing 27PDHD, 20PDHD & SDHD Complete:

|             |                                | Heavy Duty Rol         | Roller Assem              | oly Complete*             |         |                        |  |
|-------------|--------------------------------|------------------------|---------------------------|---------------------------|---------|------------------------|--|
| Kelly       | 27 PDHD Complete Kelly Bushing |                        | 20 PDHD                   | SDHD                      |         | Identical              |  |
| Size / Type | ABI P/N                        | Identical<br>VARCO P/N | Complete Kelly<br>Bushing | Complete<br>Kelly Bushing | ABI P/N | Identical<br>VARCO P/N |  |
| 3" Hex      | 2701-P                         | 3650-30                | 2001-P                    | 2701-S                    | 2101    | 3667                   |  |
| 3.1/2" Hex  | 2702-P                         | 3650-35                | 2002-P                    | 2702-S                    | 2102    | 3668                   |  |
| 4.1/4" Hex  | 2703-P                         | 3650-42                | 2003-P                    | 2703-S                    | 2103    | 3669                   |  |
| 5.1/4" Hex  | 2704-P                         | 3650-52                | 2004-P                    | 2704-S                    | 2104    | 3672                   |  |
| 6" Hex      | 2705-P                         | 3650-60                | 2005-P                    | 2705-S                    | 2105    | 3673                   |  |
| 3" Sq.      | 2706-P                         | 3651-30                | 2006-P                    | 2706-S                    | 2106    | 3660                   |  |
| 3.1/2" Sq.  | 2721-P                         | 3651-35                | 2011-P                    | 2711-S                    | 2110    | 3661                   |  |
| 4.1/4" Sq.  | 2707-P                         | 3651-42                | 2007-P                    | 2707-S                    | 2107    | 3662                   |  |
| 5.1/4" Sq.  | 2708-P                         | 3651-52                | 2008-P                    | 2708-S                    | 2108    | 3665                   |  |
| 6" Sq.      | 2709-P                         | 3651-60                | 2009-P                    | 2709-S                    | 2109    | 3666                   |  |

\*The Roller Assembly comprises Flat/V-roller (1 No.), Roller Pin (1 No.), Bearing (1 No.), and Thrust Washer (2 No.).

#### Part List of Kelly Bushing:

|        |   | Qty.     | 27 P    | DHD                    |         |        |
|--------|---|----------|---------|------------------------|---------|--------|
| S. No. | Description                             | Per Unit | ABI P/N | Identical<br>VARCO P/N | 20 PDHD | SDHD   |
| 1.     | Kelly Bushing Body less Roller Assembly | 1 No.    | 2710-P  | 3653                   | 2010-P  | 2710-S |
| 2.     | Hold Down Bolt                          | 4 No.    | 2711    | 13501                  | 2711    | 2711   |
| 3.     | Hold Down Bolt Lock Screw               | 4 No.    | 2711-A  | 50110-8-S              | 2711-A  | 2711-A |
| 4.     | Nut for Hold Down Bolt                  | 4 No.    | 2712    | 1208                   | 2712    | 2712   |
| 5.     | Lock Washer for Nut                     | 4 No.    | 2713    | 51110-C                | 2713    | 2713   |
| 6.     | Drive Pin with Washer                   | 4 No.    | 2714    | 1605                   | 2714-S  | _      |
| 7.     | Wrench                                  | 1 No.    | 2715    | 1210                   | 2715    | 2715   |
| 8.     | Wiper Assembly                          | 1 No.    | 2716    | _                      | 2716    | 2716   |
| 9.     | Wiper Retainer Plate                    | 1 No.    | 2716-B  | 1321                   | 2716-B  | 2716-B |
| 10.    | Wiper Retainer Plate Screw              | 8 No.    | 2716-C  | 50008-10-S             | 2716-C  | 2716-C |
| 11.    | Roller Pin                              | 4 No.    | 2717    | 3609                   | 2717    | 2717   |
| 12.    | Roller Bearing                          | 4 No.    | 2718    | 1312                   | 2718    | 2718   |
| 13.    | Sleeve Bush                             | 4 No.    | 2719    | 1326                   | 2719    | 2719   |
| 14.    | Thrust Washer                           | 8 No.    | 2720    | 3618                   | 2720    | 2720   |
| 15.    | Lifting Sling (Four Hooks Type)         | 1 No.    | 2721    | _                      | 2721    | 2721   |

#### **Individual Rollers:**

|        | For Hex Kelly |                        |            |                        | For Square Kelly |                        |  |
|--------|---------------|------------------------|------------|------------------------|------------------|------------------------|--|
| Kelly  | Flat Roller   |                        | V Roller   |                        | Flat Roller      |                        |  |
| size   | ABI<br>P/N    | Identical<br>Varco P/N | ABI<br>P/N | Identical<br>Varco P/N | ABI<br>P/N       | Identical<br>Varco P/N |  |
| 2.1/2" | 2111          | _                      | 2119       | _                      | 2111-S           | _                      |  |
| 3"     | 2112          | 1338                   | 2120       | 1339                   | 2112-S           | 1331                   |  |
| 3.1/2" | 2113          | 1340                   | 2121       | 1341                   | 2113-S           | 1332                   |  |
| 4.1/4" | 2114          | 1342                   | 2122       | 1343                   | 2114-S           | 1333                   |  |
| 4.1/2" | 2115          | 1385                   | 2123       | 1386                   | 2115-S           | _                      |  |
| 5"     | 2116          | 1387                   | 2124       | 1388                   | 2116-S           | _                      |  |
| 5.1/4" | 2117          | 1344                   | 2125       | 1345                   | 2117-S           | 1334                   |  |
| 6"     | 2118          | 1346                   | 2126       | 1347                   | 2118-S           | 1335                   |  |



Flat & V Roller Figure No. 21

Note:

- 1. Items numbered 2 to 10 are pre-fitted within the Kelly Bushing Body (Item Serial No. 1).
- 2. Items numbered 11 to 13 are pre-fitted within the complete Roller Assembly.



## Kelly Bushing 17PDMD & 17SDMD Complete:

| Kelly       | 17 PDMD 17 SDMD<br>Kelly Kelly | 17 4KRVS<br>Kelly            | Roller              | Individual Roller for Hex |             |                |
|-------------|--------------------------------|------------------------------|---------------------|---------------------------|-------------|----------------|
| Size / Type | Bushing<br>Complete            | Kelly<br>Bushing<br>Complete | Bushing<br>Complete | Assembly                  | V<br>Roller | Flat<br>Roller |
| 2.1/2" SQ   | 1701-P                         | 1701-S                       | 1701-KR             | 1721                      | 1729        | 1737           |
| 3" SQ       | 1702-P                         | 1702-S                       | 1702-KR             | 1722                      | 1730        | 1738           |
| 3.1/2" SQ   | 1703-P                         | 1703-S                       | 1703-KR             | 1723                      | 1731        | 1739           |
| 4.1/4" SQ   | 1704-P                         | 1704-S                       | 1704-KR             | 1724                      | 1732        | 1740           |
| 5.1/4" SQ   | 1705-P                         | 1705-S                       | 1705-KR             | 1725                      | 1733        | 1741           |
| 3" HEX      | 1706-P                         | 1706-S                       | 1706-KR             | 1726                      | 1734        | 1742           |
| 3.1/2" HEX  | 1707-P                         | 1707-S                       | 1707-KR             | 1727                      | 1735        | 1743           |
| 4.1/4" HEX  | 1708-P                         | 1708-S                       | 1708-KR             | 1728                      | 1736        | 1744           |

## Part List of Kelly Bushing:

| S. No. | Description                             | Qty.<br>Per Unit | 17<br>PDMD | 17<br>SDMD | 17<br>4KRVS |
|--------|---|------------------|------------|------------|-------------|
| 1.     | Kelly Bushing Body less Roller Assembly | 1 No.            | 1710-P     | 1710-S     | 1710-KR     |
| 2.     | Hold Down Bolt                          | 4 No.            | 1711       | 1711       | 1711        |
| 3.     | Hold Down Bolt lock screw               | 4 No.            | 1711-A     | 1711-A     | 1711-A      |
| 4.     | Nut for hold down bolt                  | 4 No.            | 1712       | 1712       | 1712        |
| 5.     | Lock washer for nut                     | 4 No.            | 1713       | 1713       | 1713        |
| 6.     | Drive pin with washer                   | 4 No.            | 1714       | _          | 1714        |
| 7.     | Wrench                                  | 1 No.            | 1715       | 1715       | 1715        |
| 8.     | Wiper assembly                          | 1 No.            | 1716       | 1716       | 1716        |
| 9.     | Wiper Retainer plate                    | 1 No.            | 1716-B     | 1716-B     | 1716-B      |
| 10.    | Wiper Retainer plate screw              | 8 No.            | 1716-C     | 1716-C     | 1716-C      |
| 11.    | Roller Pin                              | 4 No.            | 1717       | 1717       | 1717        |
| 12.    | Roller Bearing                          | 4 No.            | 1718       | 1718       | 1718        |
| 13.    | Sleeve Bush                             | 4 No.            | 1719       | 1719       | 1719        |
| 14.    | Thrust Washer                           | 8 No.            | 1720       | 1720       | 1720        |

#### Note:

- 1. Item No. 2 to 10 are fitted in Kelly Bushing Body. (Item S.No. 1)
- 2. Item No. 11 to 13 are fitted in Roller Assembly Complete.





Wiper Retainer Plat Figure No. 23

## Kelly Wiper Assembly Part List for 17" Kelly Bushing:

| Kelly<br>Size | For Hex<br>Kelly | For Square<br>Kelly |
|---------------|------------------|---------------------|
| 2.1/2"        | _                | 17545-S             |
| 3"            | 17546-H          | 17546-S             |
| 3.1/2"        | 17547-H          | 17547-S             |
| 4.1/4"        | 17548-H          | 17548-S             |
| 5.1/4"        | -                | 17549-S             |

## Kelly Wiper Assembly Part List for 27" & 20" Kelly Bushing:

| Wij    | pers |    |
|--------|------|----|
| Figure | No.  | 22 |

| Kelly  | For S   | quare                  | For Hex |                        |  |
|--------|---------|------------------------|---------|------------------------|--|
| Size   | ABI P/N | Identical<br>Varco P/N | ABI P/N | Identical<br>Varco P/N |  |
| 2.1/2" | 2151    | -                      | 2159    | _                      |  |
| 3"     | 2152    | 12100                  | 2160    | 12107                  |  |
| 3.1/2" | 2153    | 12101                  | 2161    | 12108                  |  |
| 4.1/4" | 2154    | 12102                  | 2162    | 12109                  |  |
| 4.1/2" | 2155    | _                      | 2163    | _                      |  |
| 5"     | 2156    | _                      | 2164    | 12110                  |  |
| 5.1/4" | 2157    | 12103                  | 2165    | 12111                  |  |
| 6"     | 2158    | 12104                  | 2166    | 12112                  |  |



## **MANUAL TONGS**

Autobahn Industries is an API Approved manufacturer of Manual Tongs, holding a valid API-7K License. These Manual Tongs are specifically designed for making up and breaking connections of tubular, ranging from lightweight Tubing Pipes to heavy Drill Pipes or Drill Collar Pipes. The versatility of our Manual Tongs allows for easy assembly for either making-up or break-out simply by removing the hanger and turning the complete Tong over.

Manufactured in strict compliance with the latest edition of API-7K Specifications, we ensure that our tongs have superior quality through rigorous testing in our in-house facilities. Each Manual Tong, along with its jaws, undergoes proof loading testing before being supplied to our customers.

Our dedication to quality spans every stage of production, ensuring that only the finest Manual Tongs reach our users.

We offer four types of Manual Tongs to cover a wide range of pipes, varying from 2.3/8" to 21" in size and torque capacities from 16,000 to 100,000 ft-lbs. These are:

- 1. Manual Tong 16,000 Ft-lbs ABMT 16
- 2. Manual Tong 35,000 Ft-lbs ABMT 35
- 3. Manual Tong 65,000 Ft-lbs ABMT 65
- 4. Manual Tong 100,000 Ft-lbs ABMT 100



Manual Tongs Figure No. 24



## MANUAL TONG - 16000 Ft-lbs Model: ABMT-16

The Manual Tong ABMT-16 is engineered to handle tubular sizes ranging from 2.3/8" to 7", with a torque capacity of up to 16,000 Ft-Lbs.

#### Part List of ABMT-16:

| S. No. | Description                               | P/N                  |
|--------|---|----------------------|
| 1.     | Lever Assembly                            | MT-1601              |
| 2.     | Hanger Assembly                           | MT-1602              |
| 3.     | Long Jaw Assembly                         | MT-1603              |
| 4.     | Latch Assembly                            | MT-1604              |
| 5.     | Short Jaw Assembly                        | MT-1605              |
| 6.     | Lug Jaw Assembly (Range 2.3/8"-3.1/2")    | MT-1606              |
| 7.     | Lug Jaw Assembly (Range 3.1/2"-5.1/2")    | MT-1607              |
| 8.     | Lug Jaw Assembly (Range 4.3/4"-6.1/4")    | MT-1608              |
| 9.     | Lug Jaw Assembly (Range 5.3/4"-7")        | MT-1609              |
| 10.    | Hinge Pin w/Nut & Cotter Pin              | MT-1603-2            |
| 11.    | Tong Die (Blue Diamond/Pyramid)           | MT-1610-B/ MT-1610-P |
| 12.    | Snub Line Saver / U Clamp Style Pull Line | MT-1611              |

## MANUAL TONG - 35000 Ft-lbs Model: ABMT-35

The Manual Tong ABMT-35 is engineered to handle tubular sizes ranging from 2.3/8" to 10.3/4", with a torque capacity of up to 35,000 Ft-Lbs.

#### Part List of ABMT-35:

| S. No. | Description                                 | P/N                   |
|--------|---|-----------------------|
| 1.     | Lever Assembly                              | MT-3501               |
| 2.     | Hanger Assembly                             | MT-3502               |
| 3.     | Long Jaw Assembly                           | MT-3503               |
| 4.     | Latch Assembly                              | MT-3504               |
| 5.     | Short Jaw Assembly (Range 2.3/8"-7")        | MT-3505               |
| 6.     | Short Jaw Assembly (Range 7"-10.3/4")       | MT-3506               |
| 7.     | Lug Jaw Assembly (Range 2.3/8"-3.668")      | MT-3507               |
| 8.     | Lug Jaw Assembly (Range 2.7/8"-4.1/4")      | MT-3508               |
| 9.     | Lug Jaw Assembly (Range 3.1/2"-5.1/4")      | MT-3509               |
| 10.    | Lug Jaw Assembly (Range 5.1/4"-7")          | MT-3510               |
| 11.    | Lug Jaw Assembly (Range 7"-85/8")*          | MT-3511               |
| 12.    | Lug Jaw Assembly (Range 9.5/8"-10.3/4")*    | MT-3512               |
| 13.    | Hinge Jaw Assembly (Range 7"-8.5/8")        | MT-3513               |
| 14.    | Hinge Jaw Assembly (Range 9.5/8"-10.3/4")   | MT-3514               |
| 15.    | Hinge Pin w/nut, Retaining Pin & Cotter Pin | MT-3503-2             |
| 16.    | Tong Die (Blue Diamond/Pyramid)             | MT-3515-B / MT-3515-P |
| 17.    | Snub Line Saver / U Clamp Style Pull Line   | MT-3516               |

Note: \*Also requires the Hinge Jaw Assembly.



## MANUAL TONG - 65000 Ft-lbs Model: ABMT-65

The Manual Tong ABMT-65 is engineered to handle tubular sizes ranging from 3.1/2" to 17", with a torque capacity of up to 65,000 Ft-Lbs.

#### Part List of ABMT-65:

| S. No. | Description                               | P/N     |
|--------|---|---------|
| 1.     | Lever Assembly                            | MT-6550 |
| 2.     | Hanger Assembly                           | MT-6553 |
| 3.     | Long Jaw Assembly                         | MT-6558 |
| 4.     | Short Jaw Assembly                        | MT-6562 |
| 5.     | Latch Assembly                            | MT-6564 |
| 6.     | Lug Jaw Assembly (Range 3.1/2"-8.1/4")    | MT-6568 |
| 7.     | Lug Jaw Assembly (Range 8"-11.1/4")*      | MT-6569 |
| 8.     | Lug Jaw Assembly (Range 11.3/4"-14.3/8")* | MT-6570 |
| 9.     | Lug Jaw Assembly (Range 16"-17")*         | MT-6571 |
| 10.    | Hinge Jaw Assembly (Range 8"-17")         | MT-6572 |
| 11.    | Hinge Pin w/nut & Cotter Pin              | MT-6567 |
| 12.    | Tong Die                                  | MT-6559 |
| 13.    | Snub Line Saver / U Clamp Style Pull Line | MT-6575 |

Note: \*Also requires the Hinge Jaw Assembly.

## MANUAL TONG - 100000 Ft-lbs Model: ABMT-100

The Manual Tong ABMT-100 is engineered to handle tubular sizes ranging from 4" to 17", with a torque capacity of up to 100000 Ft-Lbs.

#### Part List of ABMT-100:

| S. No. | Description                               | P/N                    |
|--------|---|------------------------|
| 1.     | Lever Assembly                            | MT-10001               |
| 2.     | Hanger Assembly                           | MT-10002               |
| 3.     | Long Jaw Assembly                         | MT-10003               |
| 4.     | Latch Assembly                            | MT-10004               |
| 5.     | Short Jaw Assembly                        | MT-10005               |
| 6.     | Lug Jaw Assembly (Range 4"-8.1/2")        | MT-10006               |
| 7.     | Lug Jaw Assembly (Range 8.1/2"-12")*      | MT-10007               |
| 8.     | Lug Jaw Assembly (Range 12"-15")*         | MT-10008               |
| 9.     | Lug Jaw Assembly (Range 15.3/4")*         | MT-10009               |
| 10.    | Lug Jaw Assembly (Range 16"-17")*         | MT-10010               |
| 11.    | Hinge Jaw Assembly (Range 8.1/2"-17")     | MT-10011               |
| 12.    | Hinge Pin & Nut w/cotter Pin              | MT-10003-2             |
| 13.    | Tong Die (Blue Diamond/Pyramid)           | MT-10012-B/ MT-10012-P |
| 14.    | Snub Line Saver / U Clamp Style Pull Line | MT-10013               |

Note: \*Also requires the Hinge Jaw Assembly.



## MANUAL CASING TONG

The Manual Casing Tong is manufactured following API-7K specifications and is specifically designed to assemble and disassemble connections ranging from 13.3/8" to 36", by extending the required hinge jaws as per the table for Casing Head Assemblies.

This tong is engineered to handle torque capacities of up to 26,000 Ft-lbs. It boasts excellent durability, crafted from high-grade alloy steel that undergoes rigorous testing as per API - 7K specification to ensure reliability and performance.

#### Part List of Manual Casing Tong:

| S. No. | Description   | Identification No. | P/N       |
|--------|---|--------------------|-----------|
| 1.     | Lever Assembly                                      | L1                 | CT-3501   |
| 2.     | Hanger Assembly                                     | _                  | CT-3502   |
| 3.     | Long Jaw Assembly                                   | L2                 | CT-3503   |
| 4.     | Short Jaw Assembly                                  | L3                 | CT-3504   |
| 5.     | Latch Jaw Assembly                                  | L4                 | CT-3505   |
| 6.     | Latch Assembly                                      | L5                 | CT-3506   |
| 7.     | Lug Jaw Assembly                                    | L6                 | CT-3507   |
| 8.     | Hinge Jaw Assembly                                  | L7                 | CT-3508   |
| 9.     | Hinge Jaw Assembly                                  | L8                 | CT-3509   |
| 10.    | Hinge Jaw Assembly                                  | L9                 | CT-3510   |
| 11.    | Hinge Pin w/Nut & Cotter Pin for L2, L3 & L5        | -                  | CT-3503-2 |
| 12.    | Hinge Pin w/ Two Cotter Pin for L4, L6, L7, L8 & L9 | -                  | CT-3505-2 |
| 13.    | Tong Die  | _                  | MT-1610-P |

#### Table for Casing Head Assemblies:

| Fig. No.<br>At Page | Pipe Range (Inches) | Type and No. of Hinge<br>Jaws to be used |       |       |
|---------------------|---------------------|--|-------|-------|
| No. 13              |                     | L7                                       | L8    | L9    |
| A                   | 13.3/8-14.1/2       | -  | 1 No. | 1 No. |
| В                   | 14.1/2-16           | 1 No.                                    | 1 No. | -     |
| С                   | 16-17.1/2           | -  | 1 No. | 2 No. |
| D                   | 17.1/2-19           | 1 No.                                    | 1 No. | 1 No. |
| E                   | 19-20               | 2 No.                                    | 1 No. | _     |
| F                   | 20-21.1/2           | 1 No.                                    | 1 No. | 2 No. |
| G                   | 21.1/2-23           | 2 No.                                    | 1 No. | 1 No. |
| Н                   | 24-25.1/2           | 2 No.                                    | 1 No. | 2 No. |
| I                   | 25.1/2-27           | 3 No.                                    | 1 No. | 1 No. |
| J                   | 27-28.1/2           | 4 No.                                    | 1 No. | _     |
| К                   | 28.1/2-30           | 3 No.                                    | 3 No. | -     |
| L                   | 30-31.1/2           | 4 No.                                    | 2 No. | -     |
| М                   | 31.1/2-33           | 3 No.                                    | 2 No. | 2 No. |
| N                   | 33-34.1/2           | 2 No.                                    | 2 No. | 4 No. |
| Ο                   | 34.1/2-36           | 2 No.                                    | 5 No. | 1 No. |



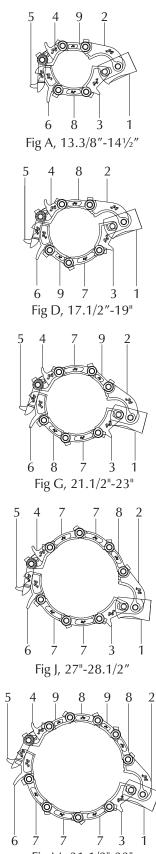
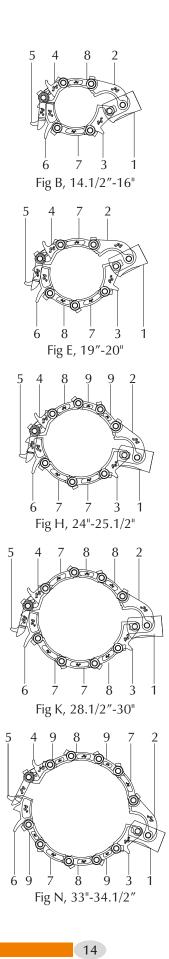
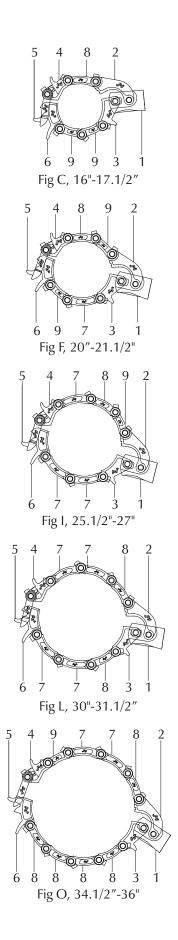


Fig M, 31.1/2"-33"







## **PNEUMATIC TUBING SPIDERS**

Autobahn Industries is an API-approved manufacturer of Spiders, holding a valid API-7K License. Our Spiders are meticulously crafted in strict compliance with the latest edition of API-7K Specifications.

Tubing Spiders offer the flexibility of being operated pneumatically or hydraulically, making them widely utilized in the tripping process. They can be conveniently operated using a foot remote control valve, facilitating the lifting and setting off of Manual Slips.

Manufactured from high-grade alloy and heat-treated for prolonged product life and superior quality, our Spiders ensure durability and reliability. The Slip Inserts are meticulously designed to firmly grip tubulars complete with a 360° hold.

Available in three models based on different load ratings and gripping sizes - Model C, CHD, and E.

Optional Accessories: Adapter Plate.



#### Various type of Tubing Spider: Figure No. 25 **Rated Capacity Slip Body Size** OD of tubular Model (In Inch) (In Inch) (up to) 3.1/21.315-3.1/2 4.1/23.1/2-4.1/2 **AB-PTS-C** 4.3/4 (Integral) 100 Ton 4.3/45 5 (Integral) 5.1/2 (Integral) 5.1/23.1/2 1.315-3.1/2 4.1/23.1/2-4.1/2 **AB-PTS-CHD** 4.3/4125 Ton 4.3/4 (Integral) 5 5 (Integral) 5.1/2 (Integral) 5.1/22.3/8 to 3.1/2 3.1/2 5.1/24 to 5.1/2 **AB-PTS-E** 7 200 Ton 5.1/2 to 7 7.5/8 7.5/8 (Integral) 8.5/8 (Integral) 8.5/8

Note: Hydraulic Spiders are also available on request.

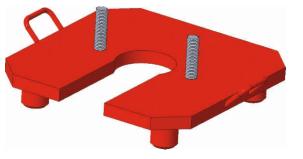


## Part List of Inserts:

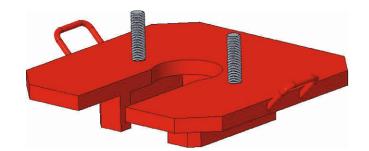
| Slip Body Size<br>(Inches) | Pipe Size<br>(OD Inches) | Insert Set*<br>Part No. |
|----------------------------|--------------------------|-------------------------|
|                            | 1.315                    | 1101                    |
|                            | 1.660                    | 1102                    |
|                            | 1.900                    | 1103                    |
| 3.1/2                      | 2.060                    | 1104                    |
|                            | 2.3/8                    | 1105                    |
|                            | 2.7/8                    | 1106                    |
|                            | 3.5                      | 1107                    |
|                            | 3.5                      | 1108                    |
| 4.1/2                      | 4                        | 1109                    |
|                            | 4.5                      | 1110                    |
|                            | 4                        | 1111                    |
| 5.4/0                      | 4.5                      | 1112                    |
| 5.1/2                      | 5                        | 1113                    |
|                            | 5.1/2                    | 1114                    |
|                            | 5.1/2                    | 1115                    |
| 7                          | 6.5/8                    | 1116                    |
|                            | 7                        | 1117                    |

\*Set Consists of 4 No. of Dies.

## Adapter Plate for Pneumatic Spider (Optional)



For Pin Drive Master Bushing Figure No. 26



For Square Drive Master Bushing Figure No. 27

| Master Bushing Size/Type | Гуре 17.1/2" 20.1/2 |             | 27.1/2"     | 37.1/2"  |
|--------------------------|---------------------|-------------|-------------|----------|
| Square Drive             | 1755-PTS-SQ         | 2055-PTS-SQ | 2755-PTS-SQ | -        |
| Pin Drive                | 1755-PTS            | 2055-PTS    | 2755-PTS    | 3717-PTS |



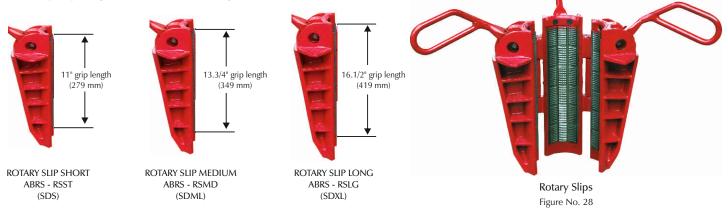
Autobahn Industries is an API-approved manufacturer of Rotary Slips, holding a valid API-7K License for the past 23 years. Our Rotary Slips, or Drill Pipe Slips, are engineered to safely hold the drill string weight while providing a full range of operations. They play a critical role in transferring the load from the elevators to the Rotary Table.

Autobahn Industries' slips are designed to withstand substantial dynamic loading without catastrophic failures, such as slip-toe damage, which could endanger rig crews and slow down operations. Designed for use in standard API Insert Bowls/Slip Bowls, our slips feature an API taper of 4 inches per foot on the diameter. The excellent design ensures that the load is evenly distributed throughout the length of the slips, preventing bottleneck damage to drill pipes. Made from superior, high-quality materials, our Rotary Slips offer great strength and reduced wear and tear, resulting in a longer lifespan.

Manufactured in strict accordance with the latest edition of API-7K Specifications, our Slips meet and exceed quality standards and are supplied with the API-7K Monogram.

We offer three models of Rotary Slip/Drill Pipe Slip:

- 1. Rotary Slip Short (SDS) Load Rating: 100 Tons
- 2. Rotary Slip Medium (SDML) Load Rating: 150 Tons
- 3. Rotary Slip Large (SDXL) Load Rating: 250 Tons



#### Part List of ABRS - RSST Short Rotary Slips (SDS):

| Slip Body Size (Inches)         | 3.1/2   |         |         |         | 4.1/2   |         |
|---------------------------------|---------|---------|---------|---------|---------|---------|
| API Pipe Sizes (OD in Inches)   | 2.3/8   | 2.7/8   | 3.1/2   | 3.1/2   | 4       | 4.1/2   |
| Slip Complete w/Insert Part No. | 5101    | 5102    | 5103    | 5104    | 5105    | 5106    |
| Weight Complete with Inserts    | 61 Kg.  | 59 Kg.  | 56 Kg.  | 73 Kg.  | 70 Kg.  | 66 Kg.  |
| Insert Part No.                 | 5160-24 | 5161-24 | 5162-24 | 5163-36 | 5164-36 | 5165-36 |

| Slip Body Size (Inches)          | 3.            | 1/2      | 4.            | 1/2      |
|----------------------------------|---------------|----------|---------------|----------|
| Description                      | Qty. Per Unit | Part No. | Qty. Per Unit | Part No. |
| Slip Segment - Right             | 1 No.         | 5107     | 1 No.         | 5118     |
| Slip Segment - Center            | 1 No.         | 5108     | 1 No.         | 5119     |
| Slip Segment - Left              | 1 No.         | 5109     | 1 No.         | 5120     |
| Handle - Right                   | 1 No.         | 5110     | 1 No.         | 5110     |
| Handle - Center                  | 1 No.         | 5111     | 1 No.         | 5111     |
| Handle - Left                    | 1 No.         | 5112     | 1 No.         | 5112     |
| Handle Pin w/Washer & Cotter Pin | 3 No.         | 5113     | 3 No.         | 5113     |
| Hinge Pin w/Cotter Pin           | 2 No.         | 5114     | 2 No.         | 5114     |
| Retaining Ring                   | 3 No.         | 5115     | 3 No.         | 5115     |
| Insert Retaining Screw w/Washer  | 6 No.         | 5116     | 6 No.         | 5116     |
| Kit - (Hex Nuts, Bolts & Wrench) | 1 No.         | 5117     | 1 No.         | 5117     |



## Part List of ABRS-RSMD Medium Rotary Slips (SDML):

| Slip Body Size (Inches)  |                  |            | 3.       | 1/2              |              |                  | 4.1/2    |           |                  |              |  |
|--|------------------|------------|----------|------------------|--------------|------------------|----------|-----------|------------------|--------------|--|
| API Pipe Sizes (OD Inches)   | 2.3              | 8/8        | 2.       | 7/8              | 3.1/2        | 3.1              | /2       |           | 4                | 4.1/2        |  |
| Slip Complete w/Insert Part No.  | 51               | 5121       |          | 122              | 5123         | 512              | 24       | 51        | 25               | 5126         |  |
| Weight Complete with Inserts   | 84               | 84 Kg.     |          | Kg.              | 81.5 Kg.     | 94               | Kg.      | 91        | Kg.              | 86 Kg.       |  |
| Insert Part No.  | 5160             | )-30       | 516      | 61-30            | 5162-30      | 5163             | 8-45     | 516       | 4-45             | 5165-45      |  |
| Slip Body Size (Inches)  |                  |            |          | 5                |              |                  |          | 5.        | 1/2              |              |  |
| API Pipe Sizes (OD Inches)   | 4                | ł          | 4.       | 1/2              | 5            | 4.1              | /2       |           | 5                | 5.1/2        |  |
| Slip Complete w/Insert Part No.  | 51               | 27         | 5        | 128              | 5129         | 513              | 30       | 51        | 31               | 5132         |  |
| Weight Complete with Inserts   | 92.5             | Kg.        | 89       | Kg.              | 84 Kg.       | 91               | Kg.      | 84        | Kg.              | 82.5 Kg.     |  |
| Insert Part No.  | 5168             | 5168-45A   |          | 6-45             | 5167-45      | 5168-45B         |          | B 5169-45 |                  | 5170-45      |  |
| Slip Body Size (Inches)  | 3.1/2            |            | 3.1/2    |                  | 4.1/2        | 5                |          |           |                  | 5.1/2        |  |
| Description  | Qty.<br>Per Unit | P/1        | N        | Qty.<br>Per Unit | P/N          | Qty.<br>Per Unit | P/       | N         | Qty.<br>Per Unit | P/N          |  |
| Slip Segment - Right   | 1 No.            | 513        | 33       | 1 No.            | 5137         | 1 No.            | 51       | 41        | 1 No.            | 5145         |  |
| Slip Segment - Center  | 1 No.            | 513        | 34       | 1 No.            | 5138         | 1 No.            | 51       | 42        | 1 No.            | 5146         |  |
| Slip Segment - Left  | 1 No.            | 513        | 35       | 1 No.            | 5139         | 1 No.            | 51       | 43        | 1 No.            | 5147         |  |
| Handle - Right   | 1 No.            | 511        | 10       | 1 No.            | 5110         | 1 No.            | 51       | 10        | 1 No.            | 5110         |  |
| Handle - Center  | 1 No.            | 511        | 11       | 1 No.            | 5111         | 1 No.            | 51       | 11        | 1 No.            | 5111         |  |
| Handle - Left  | 1 No.            | 511        | 2        | 1 No.            | 5112         | 1 No.            | 51       | 12        | 1 No.            | 5112         |  |
|  | 1 110.           | -          |          |                  |              |                  |          |           |                  |              |  |
| Handle Pin w/Washer & Cotter Pin   | 3 No.            | 511        | 13       | 3 No.            | 5113         | 3 No.            | 51       | 13        | 3 No.            | 5113         |  |
| Handle Pin w/Washer & Cotter Pin<br>Hinge Pin w/Cotter Pin                   |                  |            |          | 3 No.<br>2 No.   | 5113<br>5136 | 3 No.<br>2 No.   | 51<br>51 |           | 3 No.<br>2 No.   | 5113<br>5136 |  |
| Handle Pin w/Washer & Cotter Pin<br>Hinge Pin w/Cotter Pin<br>Retaining Ring | 3 No.            | 511        | 36       |                  |              |                  |          | 36        |                  |              |  |
| Handle Pin w/Washer & Cotter Pin<br>Hinge Pin w/Cotter Pin                   | 3 No.<br>2 No.   | 511<br>513 | 36<br>40 | 2 No.            | 5136         | 2 No.            | 51       | 36<br>44  | 2 No.            | 5136         |  |

## Part List of ABRS - RSLG Extra Long Rotary Slips (SDXL):

| Slip Body Size (Inches)         |          | 4.1/2   |         | 5        |         |         |  |
|---------------------------------|----------|---------|---------|----------|---------|---------|--|
| API Pipe Sizes (OD Inches)      | 3.1/2    | 4       | 4.1/2   | 4        | 4.1/2   | 5       |  |
| Slip Complete w/Insert Part No. | 5152     | 5153    | 5154    | 5155     | 5156    | 5157    |  |
| Weight Complete with Inserts    | 104 Kg.  | 99 Kg.  | 93 Kg.  | 108 Kg.  | 103 Kg. | 97 Kg.  |  |
| Insert Part No.                 | 5163-54  | 5164-54 | 5165-54 | 5168-54A | 5166-54 | 5167-54 |  |
| Slip Body Size (Inches)         |          | 5.1/2   |         |          | 7       |         |  |
| • /                             |          | J.1/2   |         |          | 1       |         |  |
| API Pipe Sizes (OD Inches)      | 4.1/2    | 5       | 5.1/2   | 5.7/8    | 6.5/8   | 7       |  |
| Slip Complete w/Insert Part No. | 5158     | 5159    | 5180    | 5198     | 5199    | 5200    |  |
| Weight Complete with Inserts    | 106 Kg.  | 102 Kg. | 95 Kg.  | 120 Kg.  | 110 Kg. | 105 Kg. |  |
| Insert Part No.                 | 5168-54B | 5169-54 | 5170-54 | 5171-72  | 5172-72 | 5173-72 |  |

| Slip Body Size (Inches)          |                  | 4.1/2 |                  | 5    | 5.1/2            |      | 7                |      |
|----------------------------------|------------------|-------|------------------|------|------------------|------|------------------|------|
| Description                      | Qty.<br>Per Unit | P/N   | Qty.<br>Per Unit | P/N  | Qty.<br>Per Unit | P/N  | Qty.<br>Per Unit | P/N  |
| Slip Segment - Right             | 1 No.            | 5185  | 1 No.            | 5188 | 1 No.            | 5191 | 1 No.            | 5194 |
| Slip Segment - Center            | 1 No.            | 5186  | 1 No.            | 5189 | 1 No.            | 5192 | 1 No.            | 5195 |
| Slip Segment - Left              | 1 No.            | 5187  | 1 No.            | 5190 | 1 No.            | 5193 | 1 No.            | 5196 |
| Handle - Right                   | 1 No.            | 5110  | 1 No.            | 5110 | 1 No.            | 5110 | 1 No.            | 5110 |
| Handle - Center                  | 1 No.            | 5111  | 1 No.            | 5111 | 1 No.            | 5111 | 1 No.            | 5111 |
| Handle - Left                    | 1 No.            | 5112  | 1 No.            | 5112 | 1 No.            | 5112 | 1 No.            | 5112 |
| Handle Pin w/Washer & Cotter Pin | 3 No.            | 5113  | 3 No.            | 5113 | 3 No.            | 5113 | 3 No.            | 5113 |
| Hinge Pin w/Cotter Pin           | 2 No.            | 5184  | 2 No.            | 5184 | 2 No.            | 5184 | 2 No.            | 5184 |
| Retaining Ring                   | 3 No.            | 5140  | 3 No.            | 5144 | 3 No.            | 5148 | 3 No.            | 5149 |
| Insert Retaining Screw w/Washer  | 6 No.            | 5116  | 6 No.            | 5116 | 6 No.            | 5116 | 6 No.            | 5116 |
| Kit - (Hex Nuts, Bolts & Wrench) | 1 No.            | 5117  | 1 No.            | 5117 | 1 No.            | 5117 | 1 No.            | 5117 |

AUTOBAHN INDUSTRIES company with innovation

Featuring enhanced wraparound insert designs, Autobahn's Manual Drill Collar Slips prevent bottlenecking and gouging damage while providing superior contact and vertical load distribution for drill pipes. Each slip segment is cast with an extra-long back, offering maximum support to the circular button-gripping elements. The multi-segmented drill collar slip is manufactured from heat-treated alloy steel, ensuring exceptional wear resistance and maximum load-carrying capacity. Strong and balanced, these slips are designed to minimize crew fatigue and maintenance, providing extended performance.

Our slips are meticulously designed and manufactured in accordance with API-7K Specifications. Drill Collar Slips are available in three types, accommodating all popular drill collar sizes ranging from 3" OD to 14" OD.

|                                       | Slip Type, Size and Range (OD, inches) |         |         |         |             |  |  |  |  |
|---------------------------------------|--|---------|---------|---------|-------------|--|--|--|--|
| Description                           | ABD                                    | CS-S    | ABD     | ABDCS-L |             |  |  |  |  |
|                                       | 3-4                                    | 4-4.7/8 | 4.1/2-6 | 5.1/2-7 | 6.3/4-8.1/4 |  |  |  |  |
| P/N, Slip Complete w/Circular Buttons | 5201                                   | 5202    | 5203    | 5204    | 5205        |  |  |  |  |
| Weight Complete with Inserts          | 47 Kg.                                 | 47 Kg.  | 54 Kg.  | 51 Kg.  | 70 Kg.      |  |  |  |  |
| Total Number of Segments              | 7 No.                                  | 7 No.   | 9 No.   | 9 No.   | 11 No.      |  |  |  |  |
| Total Number of Hinge Pins            | 6 No.                                  | 6 No.   | 8 No.   | 8 No.   | 10 No.      |  |  |  |  |
| Insert Bowl                           | Bowl No. 3                             |         |         |         |             |  |  |  |  |

|                                       | Slip Type, Size and Range (OD, inches) |          |               |            |        |  |  |  |  |
|---------------------------------------|--|----------|---------------|------------|--------|--|--|--|--|
| Description                           |  |          | ABDCS-L       |            |        |  |  |  |  |
|                                       | 8-9.1/2                                | 8.1/2-10 | 9.1/4-11.1/4* | 11-12.3/4* | 12-14* |  |  |  |  |
| P/N, Slip Complete w/Circular Buttons | 5206                                   | 5207     | 5208          | 5209       | 5210   |  |  |  |  |
| Weight Complete with Inserts          | 78 Kg.                                 | 84 Kg.   | 90 Kg.        | 96 Kg.     | 94 Kg. |  |  |  |  |
| Total Number of Segments              | 12 No.                                 | 13 No.   | 14 No.        | 17 No.     | 17 No. |  |  |  |  |
| Total Number of Hinge Pins            | 11 No.                                 | 12 No.   | 13 No.        | 16 No.     | 16 No. |  |  |  |  |
| Insert Bowl                           | Bowl No. 3                             | Bowl     | No. 2         | Bowl       | No. 1  |  |  |  |  |

Note: \*Is to be supplied with 4 No. handles.

#### Part List of Drill Collar Slips:

| Description                         | ABDCS-S<br>P/N | ABDCS-R<br>P/N | ABDCS-L<br>P/N |
|-------------------------------------|----------------|----------------|----------------|
| Segment - Right End                 | 5212           | 5237           | 5241           |
| Segment - Left End                  | 5213           | 5238           | 5242           |
| Segment - Intermediate              | 5214           | 5239           | 5243           |
| Hinge Pin w/Cotter Pin              | 5215           | 5240           | 5244           |
| Handle Pin w/Washer & Cotter Pin    | 5216           | 5216           | 5216           |
| Handle for Right & Left End Segment | 5217           | 5217           | 5217           |
| Handle for Intermediate Segment     | 5218           | 5218           | 5218           |
| Retaining Cotter Pin                | 5235           | 5235           | 5235           |
| Retaining Screw w/lock washer       | 5236           | 5236           | 5236           |

#### Part No. for Circular Button:

| Slip<br>Type | Slip Size<br>Drill Collar Range<br>(Inches) | P/N      | Qty.<br>Per Unit |
|--------------|---|----------|------------------|
| Short        | 3-4   | 5228-49  | 49 No.           |
| Short        | 4-4.7/8                                     | 5220-49  | 49 No.           |
| Regular      | 4.1/2-6                                     | 5228-63  | 63 No.           |
| Regular      | 5.1/2-7                                     | 5220-63  | 63 No.           |
|              | 6.3/4-8.1/4                                 | 5230-88  | 88 No.           |
|              | 8-9.1/2                                     | 5230-96  | 96 No.           |
| Long         | 8.1/2-10                                    | 5227-104 | 104 No.          |
| Long         | 9.1/4-11.1/4                                | 5230-112 | 112 No.          |
|              | 11-12.3/4                                   | 5225-136 | 136 No.          |
|              | 12-14                                       | 5230-136 | 136 No.          |



7.7/8″ grip length (200 mm)

7.7/8" grip length (200 mm)

DRILL COLLAR SHORT (ABDCS-S)

DRILL COLLAR

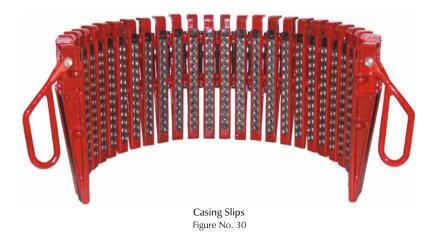
REGULAR (ABDCS-R)



## **CASING SLIPS**

Today's deeper drilling requires long and heavy casing strings, and Autobahn's Casing Slips are designed to handle any casing job with ease. Our CMS slips are made from castings and reinforced to withstand severe service conditions. The multi-segment design ensures a self-centered, full wraparound grip that prevents damage to the casing. This design allows for handling casing sizes from 5" to 30" OD by increasing or decreasing the number of segments and dressing the slip with appropriately sized inserts.

Casing Slips have a grip length of 13.1/2" (343mm) and an API taper of 4 inches per foot on the diameter. They are manufactured strictly in accordance with the latest edition of API-7K Specifications.



| Description                           | Casing Size (OD, inches) |        |        |        |        |        |        |        |  |  |
|---------------------------------------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--|--|
| Description                           | 5                        | 5.1/2  | 6.5/8  | 7      | 7.5/8  | 8.5/8  | 9      | 9.5/8* |  |  |
| P/N, Slip Complete w/Circular Buttons | 5300                     | 5300A  | 5301   | 5302   | 5303   | 5304   | 5304A  | 5305   |  |  |
| Weight Complete with Inserts          | 89 Kg.                   | 88 Kg. | 89 Kg. | 84 Kg. | 76 Kg. | 83 Kg. | 88 Kg. | 88 Kg. |  |  |
| Total Number of Segments              | 11 No.                   | 11 No. | 12 No. | 12 No. | 12 No. | 13 No. | 14 No. | 14 No. |  |  |
| Total Number of Hinge Pins            | 10 No.                   | 10 No. | 11 No. | 11 No. | 11 No. | 12 No. | 13 No. | 13 No. |  |  |

|                                       |                | Casing Size (OD, inches) |         |         |         |         |         |         |
|---------------------------------------|----------------|--------------------------|---------|---------|---------|---------|---------|---------|
| Description                           | 9.7/8 &<br>10* | 10.3/4*                  | 11.3/4* | 12.3/4* | 13.3/8* | 14*     | 16*     | 16.3/4* |
| P/N, Slip Complete w/Circular Buttons | 5305A          | 5306                     | 5307    | 5307A   | 5308    | 5308A   | 5309    | 5309A   |
| Weight Complete with Inserts          | 107 Kg.        | 95 Kg.                   | 118 Kg. | 129 Kg. | 112 Kg. | 153 Kg. | 140 Kg. | 173 Kg. |
| Total Number of Segments              | 14 No.         | 15 No.                   | 17 No.  | 17 No.  | 18 No.  | 19 No.  | 21 No.  | 22 No.  |
| Total Number of Hinge Pins            | 13 No.         | 14 No.                   | 16 No.  | 16 No.  | 17 No.  | 18 No.  | 20 No.  | 21 No.  |

| Description                           |         | Casing Size (OD, inches) |         |         |         |         |         |         |
|---------------------------------------|---------|--------------------------|---------|---------|---------|---------|---------|---------|
| Description                           | 18*     | 18.5/8*                  | 20*     | 22*     | 24*     | 26*     | 28*     | 30*     |
| P/N, Slip Complete w/Circular Buttons | 5309B   | 5310                     | 5311    | 5311A   | 5312    | 5313    | 5313A   | 5314    |
| Weight Complete with Inserts          | 199 Kg. | 167 Kg.                  | 175 Kg. | 205 Kg. | 202 Kg. | 222 Kg. | 249 Kg. | 249 Kg. |
| Total Number of Segments              | 25 No.  | 25 No.                   | 26 No.  | 28 No.  | 30 No.  | 33 No.  | 37 No.  | 37 No.  |
| Total Number of Hinge Pins            | 24 No.  | 24 No.                   | 25 No.  | 27 No.  | 29 No.  | 32 No.  | 36 No.  | 36 No.  |

Note: \*Is to be supplied with 04 No. handles.



## CP-S Conductor Pipe Slip:

| Description                           |         | Casing Size (OD, inches) |         |         |  |  |  |
|---------------------------------------|---------|--------------------------|---------|---------|--|--|--|
| Description                           | 24      | 26                       | 30      | 36      |  |  |  |
| P/N, Slip Complete w/Circular Buttons | 5341    | 5342                     | 5343    | 5344    |  |  |  |
| Weight Complete with Inserts          | 125 Kg. | 134 Kg.                  | 145 Kg. | 164 Kg. |  |  |  |
| Total Number of Segments              | 13 No.  | 14 No.                   | 16 No.  | 18 No.  |  |  |  |
| Total Number of Hinge Pins            | 24 No.  | 26 No.                   | 30 No.  | 34 No.  |  |  |  |

### Part List of Casing Slips:

| <b>C</b> .                          |      |
|-------------------------------------|------|
| Description                         | P/N  |
| Segment - Right End                 | 5316 |
| Segment - Left End                  | 5317 |
| Segment - Intermediate              | 5318 |
| Hinge Pin w/Cotter Pin              | 5319 |
| Handle Pin w/Washer & Cotter Pin    | 5320 |
| Handle for Right & Left End Segment | 5321 |
| Handle for Intermediate Segments    | 5322 |
| Retaining Screw w/Lock Washer       | 5323 |

## **FLEXIBLE HANDLES**

- 1. Flexible Handles can be easily fitted onto slips without requiring any modification.
- 2. Flexible Handles offer increased safety during use and are more durable.
- 3. They help reduce the likelihood of bending and breaking.
- 4. Flexible Handles minimize the risk of injury to the crew.



### Part No. for Circular Buttons:

|            | Slips                 | Circula  | ar Buttons    |
|------------|-----------------------|----------|---------------|
| Туре       | Casing Sizes (Inches) | P/N      | Qty. Per Unit |
|            | 5                     | 5221-132 | 132 No.       |
|            | 5.1/2                 | 5222-132 | 132 No.       |
|            | 6.5/8                 | 5228-144 | 144 No.       |
|            | 7                     | 5219-144 | 144 No.       |
|            | 7.5/8                 | 5230-144 | 144 No.       |
|            | 8.5/8                 | 5230-156 | 156 No.       |
|            | 9                     | 5229-168 | 168 No.       |
|            | 9.5/8                 | 5230-168 | 168 No.       |
|            | 9.7/8 & 10            | 5230-168 | 168 No.       |
| CMS-XL     | 10.3/4                | 5230-180 | 180 No.       |
| CIVID / LE | 11.3/4                | 5227-204 | 204 No.       |
| EVEDA      | 12.3/4                | 5231-216 | 216 No.       |
| EXTRA      | 13.3/8                | 5230-216 | 216 No.       |
|            | 14                    | 5228-228 | 228 No.       |
| LONG       | 16                    | 5231-252 | 252 No.       |
|            | 16.3/4                | 5231-264 | 264 No.       |
|            | 18                    | 5228-300 | 300 No.       |
|            | 18.5/8                | 5226-300 | 300 No.       |
|            | 20                    | 5231-312 | 312 No.       |
|            | 22                    | 5230-336 | 336 No.       |
|            | 24                    | 5231-360 | 360 No.       |
|            | 26                    | 5231-396 | 396 No.       |
|            | 28                    | 5228-432 | 432 No.       |
| -          | 30                    | 5231-444 | 444 No.       |

| Description                     | Handle Part No.  |                        |                  |  |  |
|---------------------------------|------------------|------------------------|------------------|--|--|
| Description                     | For Rotary Slips | For Drill Collar Slips | For Casing Slips |  |  |
| Handle for Segment-Right End    | 5110F            | 5217F (R)              | 5321F (R)        |  |  |
| Handle for Segment-Left End     | 5112F            | 5217F (L)              | 5321F (L)        |  |  |
| Handle for Segment-Intermediate | 5111F            | 5218F                  | 5322F            |  |  |



## **RHS ROTARY HAND SLIPS**

Autobahn Industries manufactures the RHS Rotary Hand Slip, a heavy-duty slip widely utilized in deep drilling operations. The RHS Slip features a gripping length of 16.1/2" (419mm) and an API taper of 4 inches per foot on the diameter. It is primarily used to hang off drill pipe during operations such as running in or pulling out of a hole.

The excellent design ensures that the load is evenly distributed throughout the length of the slips, preventing bottleneck damage to drill pipes. Made from superior, high-quality materials, our RHS Rotary Slip offers great strength and reduced wear and tear, resulting in a longer lifespan.

Manufactured in strict accordance with the latest edition of API-7K Specifications, our slips meet and exceed quality standards and are supplied with the API-7K Monogram.



RHS Rotary Hand Slips Figure No. 32

| Slip Body Size<br>(Inches) | To Handle Drill Pipe Size<br>(Inches) | Insert Bowl | Load Rating<br>(Ton) |
|----------------------------|---------------------------------------|-------------|----------------------|
| 5                          | 4-5                                   | Bowl No. 3  | 500                  |
| 6                          | 5-6                                   | Bowl No. 3  | 675                  |
| 7                          | 6-7                                   | Bowl No. 3  | 750                  |

| Body Size<br>(Inches) | Pipe Size<br>(Inches) | Complete<br>Unit Part No. | Insert<br>Part No. | Qty of Inserts<br>(Per Set) |
|-----------------------|-----------------------|---------------------------|--------------------|-----------------------------|
|                       | 5                     | 75001                     | 75124              | 24 No.                      |
|                       | 4.875                 | 75002                     | 75224              | 24 No.                      |
|                       | 4.75                  | 75003                     | 75324              | 24 No.                      |
|                       | 4.625                 | 75004                     | 75424              | 24 No.                      |
| 5                     | 4.5                   | 75005                     | 75524              | 24 No.                      |
|                       | 4.375                 | 75006                     | 75624              | 24 No.                      |
|                       | 4.25                  | 75007                     | 75724              | 24 No.                      |
|                       | 4.125                 | 75008                     | 75824              | 24 No.                      |
|                       | 4                     | 75009                     | 75924              | 24 No.                      |
|                       | 6                     | 76001                     | 76124              | 24 No.                      |
|                       | 5.875                 | 76002                     | 76224              | 24 No.                      |
|                       | 5.75                  | 76003                     | 76324              | 24 No.                      |
|                       | 5.625                 | 76004                     | 76424              | 24 No.                      |
| 6                     | 5.5                   | 76005                     | 76524              | 24 No.                      |
|                       | 5.375                 | 76006                     | 76624              | 24 No.                      |
|                       | 5.25                  | 76007                     | 76724              | 24 No.                      |
|                       | 5.125                 | 76008                     | 76824              | 24 No.                      |
|                       | 5                     | 76009                     | 76924              | 24 No.                      |

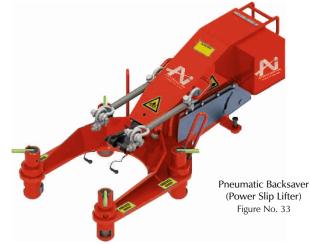


| Body Size<br>(Inches) | Pipe Size<br>(Inches) | Complete<br>Unit Part No. | Insert<br>Part No. | Qty of Inserts<br>(Per Set) |
|-----------------------|-----------------------|---------------------------|--------------------|-----------------------------|
|                       | 6                     | 77001                     | 77124              | 24 No.                      |
|                       | 6.125                 | 77002                     | 77224              | 24 No.                      |
|                       | 6.250                 | 77003                     | 77324              | 24 No.                      |
|                       | 6.375                 | 77004                     | 77424              | 24 No.                      |
| 7                     | 6.5                   | 77005                     | 77524              | 24 No.                      |
|                       | 6.625                 | 77006                     | 77624              | 24 No.                      |
|                       | 6.750                 | 77007                     | 77724              | 24 No.                      |
|                       | 6.875                 | 77008                     | 77824              | 24 No.                      |
|                       | 7                     | 77009                     | 77924              | 24 No.                      |

Note: RHS Rotary Hand Slips variants beyond the standard offering can be customized to meet specific customer requirements upon request.

#### **PNEUMATIC BACKSAVER**

Autobahn manufactures the Pneumatic Backsaver or Power Slip Lifter, a pneumatically operated power tool designed to lift drill pipe slips. Its purpose is to reduce personnel fatigue and minimize injuries by enabling remote operation from the driller's cabin or standalone control panels. Additionally, it extends the life of slips and inserts by properly setting and raising them. The Slip Lifter is compatible with Autobahn's drill pipe slips (SDS, SDML & SDXL) ranging from 2.3/8" to 7.5/8", as well as with any other API brand slips.



#### **Technical Specification:**

| Rotary Table       | 17.1/2"-37.1/2" Pin drive master bushing API Pin Drive Pitch diameter 654.05 mm |
|--------------------|---|
| Pipe Size Range    | 2.3/8"-7.5/8"   |
| Operating Pressure | 7 Bar (100 psi)   |
| Type of Slip       | Short(SDS), Medium(SDML) & Long(SDXL)   |

Note: Hydraulic Operated Backsaver is also available on request.

#### Type of Adapter

Pneumatic Backsaver can be used with different Adapters as per the type of Slip.

| Slip Type     | Part No. |
|---------------|----------|
| Short (SDS)   | SLA-01   |
| Medium (SDML) | SLA-02   |
| Long (SDXL)   | SLA-03   |



Pneumatic Backsaver Adapter Figure No. 34



## HYDRAULIC POWER SLIP (Eq. to PS 500)

#### Model: HPS-500

Autobahn's Hydraulic Power Slip is engineered to handle long, heavy tubulars ranging from 2.3/8" to 14", with a capacity of 500 tons. They can be installed in various Rotary Tables, with adapters available for different sizes and types. The Power Slip features a central greasing system and hydraulic feedback for "Slips Up" and "Slips Down" operations.

#### Special Features :

- 1. Slip Assemblies and Insert Carriers are interchangeable with the HPS-500.
- 2. A single HPS-500 body can accommodate the entire range of 2.3/8" to 14" tubulars.



Hydraulic Power Slip Figure No. 35

#### **Technical Specification:**

| Maximum permissible operating load | 500 short ton                                   |
|------------------------------------|---|
| Material and Production Standard   | API 7K Specification                            |
| Pipe diameter                      | 2.3/8"-14"                                      |
| Rotary Table diameter              | 37.1/2"   |
| Rotary Table                       | All Rotary Table with respective Adapter        |
| Hydraulic Working Pressure         | Min 160 bar (2321 psi), Max 210 bar (3046 psi)  |
| Hydraulic Flow Rate                | Min 18.9 L/min (5 gpm), Max 37.9 L/min (10 gpm) |



| S.No. | Item Description                                  | Part No.     |
|-------|---|--------------|
| 1.    | Body  | HPS-51       |
| 2.    | Door Assembly                                     | HPS-52       |
| 3.    | Centring System                                   | HPS-53       |
| 4.    | Slip Assembly                                     | HPS-55       |
| 5.    | Stand Alone Control Unit For Operating Power Slip | Upon request |

## Insert Carrier Detail:

| S.No. | Insert Carrier for Drill Pipe  | Inserts Part No. | Carrier Body Size | Part No. | Load Rating<br>(Ton) |
|-------|--------------------------------|------------------|-------------------|----------|----------------------|
| 1.    | 2.3/8″                         | HPS-5601         |                   | HPS-561  | 250                  |
| 2.    | 2.7/8″                         | HPS-5602         | 3.1/2″            |          |                      |
| 3.    | 3.1/2″                         | HPS-5603         |                   |          |                      |
| 4.    | 3.1/2″                         | HPS-5604         | 4.1/2″            | HPS-562  | 350                  |
| 5.    | 4″                             | HPS-5605         |                   |          |                      |
| 6.    | 4.1/2″                         | HPS-5606         |                   |          |                      |
| 7.    | 4.1/2″                         | HPS-5607         |                   | HPS-563  | 500                  |
| 8.    | 5″                             | HPS-5608         | 5.1/2″            |          |                      |
| 9.    | 5.1/2″                         | HPS-5609         |                   |          |                      |
| 10.   | 5.7/8″                         | HPS-5610         |                   | HPS-564  | 500                  |
| 11.   | 6.5/8″                         | HPS-5611         |                   |          |                      |
| 12.   | 6.906″                         | HPS-5612         | 7″                |          |                      |
| 13.   | 7″                             | HPS-5613         |                   |          |                      |
| 14.   | 6.5/8″                         | HPS-5614         |                   |          | 500                  |
| 15.   | 6.906″                         | HPS-5615         |                   | HPS-565  |                      |
| 16.   | 7″                             | HPS-5616         | 7.5/8″            |          |                      |
| 17.   | 7.5/8″                         | HPS-5617         |                   |          |                      |
| 18.   | 7.3/4″                         | HPS-5618         |                   |          |                      |
| S.No. | Insert Carrier for Casing Pipe |                  |                   |          |                      |
| 19.   | 8.5/8″                         | HPS-5619         | 0.5/0//           | HPS-566  | 500                  |
| 20.   | 9.5/8″                         | HPS-5620         | 9.5/8″            |          |                      |
| 21.   | 9.5/8″                         | HPS-5621         |                   | HPS-567  | 500                  |
| 22.   | 9.7/8″                         | HPS-5622         | 10.2/4//          |          |                      |
| 23.   | 10″                            | HPS-5623         | 10.3/4″           |          |                      |
| 24.   | 10.3/4″                        | HPS-5624         |                   |          |                      |
| 25.   | 11.3/4″                        | HPS-5625         |                   | HPS-568  | 500                  |
| 26.   | 11.7/8″                        | HPS-5626         | 12.3/4″           |          |                      |
| 27.   | 12.3/4″                        | HPS-5627         | 1                 |          |                      |
| 28.   | 12.3/4″                        | HPS-5628         |                   | HPS-569  | 500                  |
| 29.   | 13.3/8″                        | HPS-5629         | ]                 |          |                      |
| 30.   | 13.1/2″                        | HPS-5630         | 14″               |          |                      |
| 31.   | 13.5/8″                        | HPS-5631         |                   |          |                      |
| 32.   | 14″                            | HPS-5632         |                   |          |                      |



| S.No. | . Insert Carrier for Drill Collar with Zip Groove |          |        |         |     |
|-------|---|----------|--------|---------|-----|
| 33.   | 4.3/4″  | HPS-5633 | 4.1/2″ | HPS-571 | 150 |
| 34.   | 5.1/4"  | HPS-5634 | 5.1/2″ | HPS-572 | 150 |
| 35.   | 6.1/4″  | HPS-5635 | 6.3/4″ | HPS-573 | 150 |
| 36.   | 6.1/2″  | HPS-5636 |        |         |     |
| 37.   | 6.3/4"  | HPS-5637 |        |         |     |
| 38.   | 7″  | HPS-5638 |        |         |     |
| 39.   | 8″  | HPS-5639 | 8.1/2″ | HPS-574 | 150 |
| 40.   | 8.1/4"  | HPS-5640 |        |         |     |
| 41.   | 8.1/2″  | HPS-5641 |        |         |     |
| 42.   | 8.3/4"  | HPS-5642 |        |         |     |
| 43.   | 9″  | HPS-5643 | 9.1/2″ | HPS-575 | 150 |
| 44.   | 9.1/2″  | HPS-5644 |        |         |     |
| 45.   | 9.3/4"  | HPS-5645 |        |         |     |
| 46.   | 10″   | HPS-5646 |        |         |     |

## **Optional Accessories:**

| S.No. | Description                                   | Part No. |
|-------|---|----------|
| 1.    | Guide Plate 5.7/8"                            | HPS-534  |
| 2.    | Guide Plate 6.5/8"                            | HPS-535  |
| 3.    | 3-Point Lifting Rope for Slip Segment         | HPS-536  |
| 4.    | 4-Point Lifting Rope for Hydraulic Power Slip | HPS-537  |
| 5.    | Insert Carrier Lifting Tool                   | HPS-538  |
| 6.    | Top Wear Guide                                | HPS-539  |



## SPRING LOADED POWER SLIP (Eq. to PS 15)

#### Model: ABSPS-27

The Autobahn Spring Loaded Power Slip (ABSPS-27) is a footoperated device designed to eliminate the manual lifting and setting of slips. It uses coil springs as a counterbalance to offset the weight of the slips when in the upper, released position. The slip can be set simply by applying pressure to the slip set ring, and released by pressing the foot pedal. This Power Slip is capable of handling drill pipes and tubing ranging from 3.1/2" to 5.1/2" in size. It is compatible with 27.1/2'', 37.1/2" and 49.1/2" Rotary Tables with API standard Pin Drive Master Bushings.



Spring Loaded Power Slip Figure No. 36

The unit consists of three major assemblies as follows:

#### 1. Top Cover Assembly:

The Top Cover Assembly is ergonomically designed in two halves with a slip set ring. It is mounted on four slip hangers with pins for secure attachment.

#### 2. Slip Assembly:

The Slip Assembly consists of four slip segments, each with a 16.1/2'' grip length for handling tubular sizes from 3.1/2'' to 5.1/2''. The slips are equipped with 48 inserts, 4 insert retaining rings, and 8 Allen screws for a secure grip.

#### 3. Bowl Assembly:

The Bowl Assembly is composed of two halves connected by a hinge pin, allowing easy installation and removal of the Power Slip from the Master Bushing. It includes four coil spring cartridges and a foot pedal for releasing the slips.



# Part List of Spring Loaded Power Slip:

| S. No. | P/N    | Description   | Qty.<br>Per Unit |
|--------|--------|---|------------------|
| 1.     | SPS-28 | Spring Cartridges   | 4 No.            |
| 2.     | SPS-29 | Foot Pedal  | 1 No.            |
| 3.     | SPS-31 | Slip Hangers  | 4 No.            |
| 4.     | SPS-32 | 5.1/2" Slip Segment to handle 4.1/2"-5.1/2" Drill Pipe.   | 4 No.            |
| 5.     | SPS-33 | 4.1/2" Slip Segment to handle 3.1/2"-4.1/2" Drill Pipe.   | 4 No.            |
| 6.     | SPS-40 | Slip Bowl   | 1 No.            |
| 7.     | SPS-41 | Top Cover   | 1 No.            |
| 8.     | SPS-42 | Brass Bush  | 4 No.            |
| 9.     | SPS-43 | Hinge Pin for Bowl  | 1 No.            |
| 10.    | SPS-44 | Hanger Top Pin  | 4 No.            |
| 11.    | SPS-45 | Hanger Bottom Pin   | 4 No.            |
| 12.    | SPS-46 | Lifting Sling (Four Hook Type)  | 1 No.            |
| 13.    | SPS-47 | Oil Seal  | 4 No.            |
| 14.    | SPS-48 | Foot Pedal Pin  | 1 No.            |
| 15.    | 5163   | Inserts to handle 3.1/2" Drill Pipe for Slip Body Size 4.1/2"<br>(One set consists of 08 no. of Inserts)                | 4 Set            |
| 16.    | 5163-B | Inserts (Taper Design) to handle 3.1/2" Drill Pipe for Slip Body Size 4.1/2"<br>(One set consists of 04 no. of Inserts) | 4 Set            |
| 17.    | 5164   | Inserts to handle 4" Drill Pipe for Slip Body Size 4.1/2"<br>(One set consists of 08 no. of Inserts)                    | 4 Set            |
| 18.    | 5164-B | Inserts (Taper Design) to handle 4" Drill Pipe for Slip Body Size 4.1/2"<br>(One set consists of 04 no. of Inserts)     | 4 Set            |
| 19.    | 5165   | Inserts to handle 4.1/2" Drill Pipe for Slip Body Size 4.1/2"<br>(One set consists of 12 no. of Inserts)                | 4 Set            |
| 20.    | 5168   | Inserts to handle 4.1/2" Drill Pipe for Slip Body Size 5.1/2"<br>(One set consists of 08 no. of Inserts)                | 4 Set            |
| 21.    | 5168-B | Inserts (Taper Design) to handle 4.1/2" Drill Pipe for Slip Body Size 5.1/2"<br>(One set consists of 04 no. of Inserts) | 4 Set            |
| 22.    | 5169   | Inserts to handle 5" Drill Pipe for Slip Body Size 5.1/2"<br>(One set consists of 08 no. of Inserts)                    | 4 Set            |
| 23.    | 5169-B | Inserts (Taper Design) to handle 5" Drill Pipe for Slip Body Size 5.1/2"<br>(One set consists of 04 no. of Inserts)     | 4 Set            |
| 24.    | 5170   | Inserts to handle 5.1/2" Drill Pipe for Slip Body Size 5.1/2"<br>(One set consists of 12 no. of Inserts)                | 4 Set            |



# **PNEUMATIC POWER SLIP (Eq. to PS 16)**

## Model: ABPPS-27

Autobahn manufactures the Pneumatic Power Slip (ABPPS-27), an air-operated power slip designed to handle drill pipe and tubing with slip sizes ranging from 3.1/2" to 5.1/2", adjustable by changing inserts. The Pneumatic Power Slip can be controlled either by a lever or a footoperated remote control valve.

Setting the Power Slip is achieved by a combination of gravity and applied air pressure, while release is facilitated solely by applied air pressure. This eliminates the need for manual setting and lifting of the slip. The Pneumatic Power Slip is compatible with 27.1/2", 37.1/2" and 49.1/2" Rotary Tables equipped with API standard Pin Drive Master Bushings.

#### **Special Features:**

- 1. Ergonomically designed for userfriendliness.
- 2. Operable by a single individual.
- 3. Remote control capability allows operation from a safer distance.
- 4. Enhances crew safety on the rig floor.



Pneumatic Power Slip Figure No. 37

(Foot Operated Control System)

The unit consists of three major assemblies as follows:

#### 1. Top Cover Assembly:

The Top Cover is designed in two halves and is equipped with two air cylinders connected via a ball floating joint secured with hex head screws. Mounted on four slip hangers with pins, the Top Cover Assembly facilitates smooth operation.

#### 2. Slip Assembly:

Comprising four Slip Segments with a 16.1/2" grip length for gripping various tubular sizes, each segment is outfitted with 48 inserts, 4 insert retaining rings, and 8 Allen screws.

#### 3. Bowl Assembly:

The Bowl Assembly, comprising two halves connected with a bowl hinge pin, enables easy installation and removal of the Power Slip from the Master Bushing. Equipped with four coil spring cartridges, it ensures efficient slip operation.

#### 4. Air Cylinders Assembly:

This assembly includes two Air Cylinders connected to the Top Cover via floating joints. The Air Cylinders facilitate the lifting of the Top Cover Assembly along with the slip assembly.

#### 5. Control System:

The Control System incorporates a filter/regulator, inline (pilot operated) valve, hand-operated pilot valve, quick exhaust valve, and various connecting hoses and fittings. It can be operated via Hand Control or Foot Pedal Control System for enhanced flexibility and ease of use.

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# Part List of Pneumatic Power Slip:

| S. No. | P/N      | Description   | Qty.<br>Per Unit |
|--------|----------|---|------------------|
| 1.     | PPS - 21 | Top Cover   | 1 No.            |
| 2.     | PPS - 22 | Hose Guard  | 1 Set            |
| 3.     | PPS - 23 | Hex Head Screw  | 2 No.            |
| 4.     | PPS - 24 | Air Cylinder  | 2 No.            |
| 5.     | PPS - 25 | Floating Joint  | 2 No.            |
| 6.     | PPS - 26 | Bellow  | 2 No.            |
| 7.     | PPS - 27 | Quick Exhaust Valve   | 4 No.            |
| 8.     | PPS - 28 | Slip Hanger   | 4 No.            |
| 9.     | PPS - 29 | Slip Hanger Top Pin w/Cotter Pin  | 4 No.            |
| 10.    | PPS - 30 | Slip Hanger Bottom Pin w/Cotter Pin   | 4 No.            |
| 11.    | PPS - 31 | 5.1/2" Slip Segment to handle 4.1/2"-5.1/2" Drill Pipe  | 4 No.            |
| 12.    | PPS - 32 | 4.1/2" Slip Segment to handle 3.1/2"-4.1/2" Drill Pipe  | 4 No.            |
| 13.    | PPS - 33 | Spring Cartridge  | 4 No.            |
| 14.    | PPS - 34 | Slip Bowl (One set of Two pcs.)   | 1 Set            |
| 15.    | PPS - 35 | Bowl Hinge Pin  | 1 No.            |
| 16.    | PPS - 36 | Brass Bush  | 4 No.            |
| 17.    | PPS - 37 | Pneumatic Control System  | 1 No.            |
| 18.    | PPS - 38 | Pneumatic Hose Unit consists of Hoses, Couplings with Connectors  | 1 No.            |
| 19.    | PPS - 39 | Foot Pedal to operate remote control valve  | 1 No.            |
| 20.    | PPS - 40 | Lever to operate remote control valve   | 1 No.            |
| 21.    | PPS - 41 | Lifting Sling (Four Hooks Type).  | 1 No.            |
| 22.    | 5163     | Inserts to handle 3.1/2" Drill Pipe for Slip Body Size 4.1/2"<br>(One set consists of 08 no. of Inserts)                | 4 Set            |
| 23.    | 5163-B   | Inserts (Taper Design) to handle 3.1/2" Drill Pipe for Slip Body Size 4.1/2" (One set consists of 04 no. of Inserts)    | 4 Set            |
| 24.    | 5164     | Inserts to handle 4" Drill Pipe for Slip Body Size 4.1/2"<br>(One set consists of 08 no. of Inserts)                    | 4 Set            |
| 25.    | 5164-B   | Inserts (Taper Design) to handle 4" Drill Pipe for Slip Body Size 4.1/2"<br>(One set consists of 04 no. of Inserts)     | 4 Set            |
| 26.    | 5165     | Inserts to handle 4.1/2" Drill Pipe for Slip Body Size 4.1/2"<br>(One set consists of 12 no. of Inserts)                | 4 Set            |
| 27.    | 5168     | Inserts to handle 4.1/2" Drill Pipe for Slip Body Size 5.1/2"<br>(One set consists of 08 no. of Inserts)                | 4 Set            |
| 28.    | 5168-B   | Inserts (Taper Design) to handle 4.1/2" Drill Pipe for Slip Body Size 5.1/2"<br>(One set consists of 04 no. of Inserts) | 4 Set            |
| 29.    | 5169     | Inserts to handle 5" Drill Pipe for Slip Body Size 5.1/2"<br>(One set consists of 08 no. of Inserts)                    |                  |
| 30.    | 5169-B   | Inserts (Taper Design) to handle 5" Drill Pipe for Slip Body Size 5.1/2"<br>(One set consists of 04 no. of Inserts)     | 4 Set            |
| 31.    | 5170     | Inserts to handle 5.1/2" Drill Pipe for Slip Body Size 5.1/2"<br>(One set consists of 12 no. of Inserts)                | 4 Set            |



## SAFETY CLAMPS Model: ABSC

Safety clamps are indispensable tools designed to prevent the accidental dropping of casing, Drill Collars, Tubing, and other tubulars into wellbores. By avoiding such incidents, they help prevent downtime and the need for time-consuming fishing expeditions. These clamps are typically installed above Slips or spiders during the initial phases of well installation when string loads are too light to ensure sufficient grip from slip equipment.

Featuring flexibly hinged links, each Safety Clamp contains its own die for gripping. Spring tension ensures continuous contact between the insert and clamp body, allowing the insert to move relative to the taper and better support the load. In case a pipe begins to fall, taper mountings within the clamps tighten around the pipe, halting further movement. Equipped with spring-loaded dies acting as shock absorbers, safety clamps provide additional axial support to prevent tubulars from falling into the wellbore.

Autobahn offers a diverse range of Safety Clamps tailored to fit tubulars ranging from 2.7/8" to 36" in diameter. These clamps exert uniform gripping pressure around pipes, preventing the crushing of thin-walled pipes or damage to their surfaces.



Figure No. 38

| Description          | ABSC-S        | 5     |               |           | ABSC-R               |           |                |
|----------------------|---------------|-------|---------------|-----------|----------------------|-----------|----------------|
| Size                 | 2.7/8"-4.1/8" | 4"-5" | 4.1/2"-5.5/8" | 5.1/2"-7" | <b>6.</b> 3/4″-8¹/₄″ | 8″-9.1/4″ | 9.1/4"-10.1/2" |
| P/N Complete Set     | 6501          | 6502  | 6503          | 6504      | 6505                 | 6506      | 6507           |
| Weight in Kg.        | 37.5          | 41    | 37            | 40        | 44                   | 47.5      | 51             |
| Total Links          | 7 No.         | 8 No. | 7 No.         | 8 No.     | 9 No.                | 10 No.    | 11 No.         |
| No. of Gripping Dies | 8 No.         | 9 No. | 8 No.         | 9 No.     | 10 No.               | 11 No.    | 12 No.         |
|                      |               |       |               |           |                      |           |                |

| Description          | ABSC-R          |                 |                 |                 |                 |  |  |
|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|--|
| Size                 | 10.1/2"-11.1/2" | 11.1/2"-12.1/2" | 12.1/2"-13.5/8" | 13.5/8"-14.3/4" | 14.3/4"-15.7/8" |  |  |
| P/N Complete Set     | 6508            | 6509            | 6510            | 6511            | 6512            |  |  |
| Weight in Kg.        | 55              | 58.5            | 62              | 66              | 69.9            |  |  |
| Total Links          | 12 No.          | 13 No.          | 14 No.          | 15 No.          | 16 No.          |  |  |
| No. of Gripping Dies | 13 No.          | 14 No.          | 15 No.          | 16 No.          | 17 No.          |  |  |

| Description          |             | ABSC-L      |                 | ABSC-XL         |                 |             |
|----------------------|-------------|-------------|-----------------|-----------------|-----------------|-------------|
| Size                 | 15.7/8"-17" | 17"-18.1/2" | 18.1/8"-19.3/8" | 19.3/8"-20.3/8" | 20.3/8"-21.1/2" | 21"-22.5/8" |
| P/N Complete Set     | 6513        | 6514        | 6515            | 6516            | 6517            | 6518        |
| Weight in Kg.        | 78.5        | 82          | 86              | 89              | 92.5            | 96          |
| Total Links          | 17 No.      | 18 No.      | 19 No.          | 19 No.          | 20 No.          | 21 No.      |
| No. of Gripping Dies | 18 No.      | 19 No.      | 20 No.          | 20 No.          | 21 No.          | 22 No.      |

| Description          | ABSC-XL              |                      |             |             |                     |        |        |  |  |
|----------------------|----------------------|----------------------|-------------|-------------|---------------------|--------|--------|--|--|
| Size                 | 22.5/8" -<br>23.3/4" | 23.3/4" -<br>24.7/8" | 24.7/8"-26" | 26"-27.1/8" | 29.3/8"-<br>30.1/2" | 32″    | 36″    |  |  |
| P/N Complete Set     | 6519                 | 6520                 | 6521        | 6522        | 6523                | 6524   | 6525   |  |  |
| Weight in Kg.        | 100                  | 103.5                | 107         | 110.5       | 152.5               | 181    | 185    |  |  |
| Total Links          | 22 No.               | 23 No.               | 24 No.      | 25 No.      | 28 No.              | 31 No. | 35 No. |  |  |
| No. of Gripping Dies | 23 No.               | 24 No.               | 25 No.      | 26 No.      | 29 No.              | 32 No. | 36 No. |  |  |

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# **UMBILICAL BOWL & ROTARY SLIPS**

Autobahn has introduced an innovative Umbilical/Slotted Insert Bowl specifically designed for 27.1/2" and 37.1/2" Master Bushings. To facilitate the installation of umbilical's, a special Insert Bowl, numbered #2 and #3, featuring a single slot for maximum opening, has been developed.

- 1. Compatibility with SDXL/SDHL or RHS Rotary Hand Slips, resulting in a significantly larger opening for enhanced functionality.
- 2. Enhanced load capacity of up to 750 sTon, ensuring robust performance even under heavy loads.

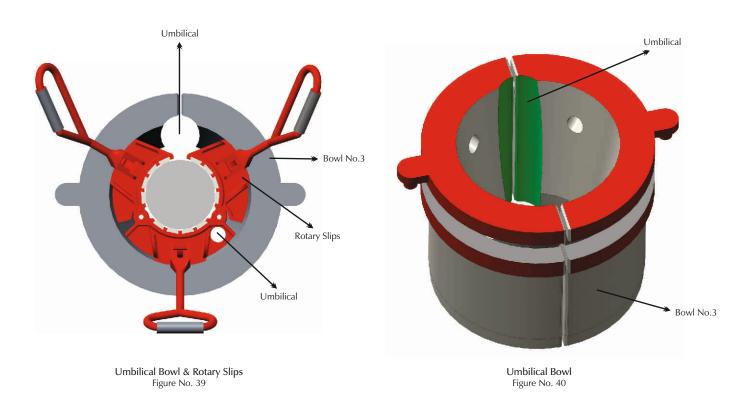
Compliance with the latest edition of API 7K standards.

## Part No. for Umbilical / Slotted Bowl:

| Description  | For 27.1/2"<br>Master Bushing | For 37.1/2"<br>Master Bushing |
|--|-------------------------------|-------------------------------|
| Umbilical / Slotted Insert Bowl No. 3 to handle tubular size 2.3/8" to 8.5/8"  | 2758-U                        | 3753-U                        |
| Umbilical / Slotted Insert Bowl No. 2 to handle tubular size 9.5/8" to 10.3/4" | 2757-U                        | 3752-U                        |

## SDXL Umbilical / Slotted Rotary Slip

Autobahn has introduced the SDXL-Long Rotary Slip with a grip size of 16.1/2", featuring an Umbilical slot tailored for use with Umbilical/Slotted Insert Bowl No. 2 & 3.



Note: The Umbilical Bowl and Umbilical Slip can also be customized according to customer requirements and designs upon specific orders.



Autobahn's Venom Shale Shakers are engineered to deliver high-capacity separation efficiency and operational flexibility, all within a compact footprint. In today's drilling environment, where operational costs are high both Onshore and Offshore, these Shale Shakers are invaluable in reducing costly non-productive time (NPT) and ensuring compliance with stringent environmental regulations.

Designed for premium drilling fluid applications, Autobahn's Venom Shale Shakers excel in recovering valuable resources from what would otherwise be waste material. They are capable of handling a wide range of solids and fluid compositions, adapting seamlessly to changes in the rate of penetration (ROP) during drilling operations.



## **Technical Specification:**

| S.No. | Description / Model                      | ABI-SD-501                   | ABI-SD-502                    | ABI-SD-503                    |  |
|-------|--|------------------------------|-------------------------------|-------------------------------|--|
| 1.    | Motion                                   | Linear                       | Linear                        | Linear                        |  |
| 2.    | No. of Deck                              | Single                       | Dual                          | Triple                        |  |
| 3.    | No. of screen per deck                   | 4 No.                        | 4 No.                         | 4 No.                         |  |
| 4.    | Power supply 380-415V/50HZ or 460V/60HZ  |                              | 380-415V/50HZ or<br>460V/60HZ | 380-415V/50HZ or<br>460V/60HZ |  |
| 5.    | Deck Angle                               | $-1^{\circ}$ to $+5^{\circ}$ | $-1^{\circ}$ to $+5^{\circ}$  | -1° to +5°                    |  |
| 6.    | Dimensions in mm $(L \times W \times H)$ | 3100×1800×1420               | 3100×3870×1420                | 3100×6100×1420                |  |
| 7.    | Weight                                   | 1875Kg                       | 3750Kg                        | 5625Kg                        |  |
| 8.    | Screen size in mm                        | 1165×585                     | 1165×585                      | 1165×585                      |  |
| 9.    | Operating temperature                    | -60℃ to +55℃                 | -60℃ to +55℃                  | -60℃ to +55℃                  |  |
| 10.   | Vibrating noise                          | 75 - 85dBA                   | 75 - 85dBA                    | 75 - 85dBA                    |  |

Note: 1. Motors and Starters are Flame proof, Explosion Proof, Weather Proof and are compatible with specified operating conditions. Certificates such as IEC/ATEX/CE will be provided.

2. Customized Shale Shaker are also available on request.



## **SUPER-G SHALE SHAKERS**

We offer a leading range of cost-effective technologies aimed at minimizing the HSE (Health, Safety, and Environment) impact of both offshore and onshore drilling activities. Our next-generation Super-G Shakers deliver high-performance results, featuring increased capacity and superior solids conveyance. With a compact design, these shakers ensure stable and trouble-free operation, requiring minimal maintenance.

#### Key Features of the Super-G Shaker:

- 1. Single Side Screen Tension System enables fast screen replacement.
- 2. Single Point Adjustment System streamlines operation.
- 3. Compact design requires minimal headroom.



Super-G Shaker Figure No. 43

## **Technical Specification:**

| S.No. | Description / Model                        | ABI-SG-501                           | ABI-SG-502                           | ABI-SG-503                           |
|-------|--|--------------------------------------|--------------------------------------|--------------------------------------|
| 1.    | Motion                                     | Linear/Balanced<br>Elliptical Motion | Linear/Balanced<br>Elliptical Motion | Linear/Balanced<br>Elliptical Motion |
| 2.    | No. of Deck                                | Single                               | Dual                                 | Triple                               |
| 3.    | No. of screen per deck                     | No. of screen per deck 3 No.         |                                      | 3 No.                                |
| 4.    | Power supply                               | 380-415V/50HZ or<br>460V/60HZ        | 380-415V/50HZ or<br>460V/60HZ        | 380-415V/50HZ or<br>460V/60HZ        |
| 5.    | Deck Angle                                 | $-1^{\circ}$ to $+5^{\circ}$         | $-1^{\circ}$ to $+5^{\circ}$         | $-1^{\circ}$ to $+5^{\circ}$         |
| 6.    | Weight                                     | 1900Kg                               | 3900Kg                               | 5700Kg                               |
| 7.    | Dimensions in mm (L $\times$ W $\times$ H) | 2800×1765×1540                       | 2800×3900×1540                       | 2800×6200×1540                       |
| 8.    | Screen size in mm                          | 1050×697                             | 1050×697                             | 1050×697                             |
| 9.    | Operating temperature                      | -60°C to 55°C                        | -60°C to 55°C                        | -60°C to 55°C                        |

| S.No. | Description / Model                        | ABI-SG-504                           | ABI-SG-505                           | ABI-SG-506                           |
|-------|--|--------------------------------------|--------------------------------------|--------------------------------------|
| 1.    | Motion                                     | Linear/Balanced<br>Elliptical Motion | Linear/Balanced<br>Elliptical Motion | Linear/Balanced<br>Elliptical Motion |
| 2.    | No. of Deck                                | Single                               | Dual                                 | Triple                               |
| 3.    | No. of screen per deck                     | 4 No.                                | 4 No.                                | 4 No.                                |
| 4.    | Power supply                               | 380-415V/50HZ or<br>460V/60HZ        | 380-415V/50HZ or<br>460V/60HZ        | 380-415V/50HZ or<br>460V/60HZ        |
| 5.    | Deck Angle                                 | $-1^{\circ}$ to $+7^{\circ}$         | $-1^{\circ}$ to $+7^{\circ}$         | -1° to +7°                           |
| 6.    | Weight                                     | 2400Kg                               | 4800Kg                               | 7200Kg                               |
| 7.    | Dimensions in mm (L $\times$ W $\times$ H) | 3500×1765×1540                       | 3500×3900×1540                       | 3500×6200×1540                       |
| 8.    | Screen size in mm                          | 1050×697                             | 1050×697                             | 1050×697                             |
| 9.    | Operating temperature                      | -60°C to 55°C                        | -60°C to 55°C                        | -60°C to 55°C                        |



# SUPER-G<sup>+</sup> SHALE SHAKERS

Super- $G^+$ Shakers are an innovative shale shaker design known for their high-performance capabilities, increased processing capacities, and improved solids control efficiency. Their unique screen design surpasses user expectations, enhancing fluid handling capability by 125%.

#### Features of Super-G<sup>+</sup> Shaker:

- 1. Single-side screen compression system facilitates rapid screen replacement.
- 2. Single Point Adjustment System allows one person to swiftly raise or lower the screen deck.
- 3. Compact design requiring minimal headroom.







Pyramid Screen



Single side Compression System

## **Technical Specification:**

| S.No. | Description / Model                      | ABI-SG-511                           | ABI-SG-512                           | ABI-SG-513                           |
|-------|--|--------------------------------------|--------------------------------------|--------------------------------------|
| 1.    | Motion                                   | Linear/Balanced<br>Elliptical Motion | Linear/Balanced<br>Elliptical Motion | Linear/Balanced<br>Elliptical Motion |
| 2.    | No. of Deck                              | Single                               | Dual                                 | Triple                               |
| 3.    | No. of screen per deck                   | 4 No.                                | 4 No.                                | 4 No.                                |
| 4.    | Power supply                             | 380-415V/50HZ or<br>460V/60HZ        | 380-415V/50HZ or<br>460V/60HZ        | 380-415V/50HZ or<br>460V/60HZ        |
| 5.    | Deck Angle                               | $+2^{\circ}$ to $8^{\circ}$          | $+2^{\circ}$ to $8^{\circ}$          | $+2^{\circ}$ to $8^{\circ}$          |
| 6.    | Weight                                   | 1900Kg                               | 4000Kg                               | 6000Kg                               |
| 7.    | Dimensions in mm $(L \times W \times H)$ | 3000×1765×1540                       | 3000×4140×1540                       | 3000×6515×1540                       |
| 8.    | Screen size in mm                        | 1070×570                             | 1070×570                             | 1070×570                             |
| 9.    | Operating temperature                    | -60°C to 55°C                        | -60°C to 55°C                        | -60°C to 55°C                        |

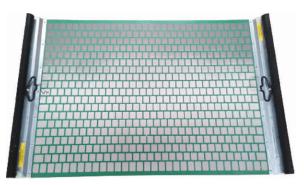


# SHALE SHAKER SCREENS

| S.No. | Shale Shaker Model         | Screen Type  | Screen Range      | Dimension in mm<br>(L x W) | Screen Model              |
|-------|----------------------------|--------------|-------------------|----------------------------|---------------------------|
| 1.    | Venom Shale Shakers        | Flat Type    | API 20 to API 325 | 1165 x 585                 | SCREEN VS-A               |
| 2.    | Super-G Shale Shakers      | Flat Type    | API 20 to API 325 | 1050 x 697                 | SCREEN SG-A               |
| 3.    | Super-G Shale Shakers      | Pyramid Type | API 20 to API 325 | 1050 x 697                 | SCREEN SG-P               |
| 4.    | Super- $G^+$ Shale Shakers | Pyramid Type | API 20 to API 325 | 1070 x 570                 | SCREEN SG <sup>+</sup> -P |

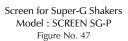


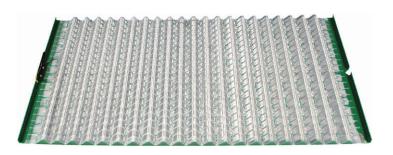
Screen for Venom Shakers Model : SCREEN VS-A Figure No. 45



Screen for Super-G Shakers Model : SCREEN SG-A Figure No. 46







Screen for Super-G<sup>+</sup> Shakers Model : SCREEN SGP-P Figure No. 48

Note: All the screens are manufactured strictly in compliance with API RP 13C.





Compression Type Load Cell Figure No. 49



Tension Type Load Cell Figure No. 50



Digital Indicator Figure No. 51

| S. No. | P/N        | Type of Load Cell | Description   | Capacity<br>(up to) |
|--------|------------|-------------------|---|---------------------|
| 1.     | LC - 6500  | Tension Type      | Load Cell Mechanism for Manual Tong with Digital Indicator    | 30 Ton              |
| 2.     | LC - 6500M | Tension Type      | Load Cell Mechanism for Manual Tong with Analog Meter         | 30 Ton              |
| 3.     | LC - 10000 | Compression Type  | Load Cell Mechanism for Rotary Slip with Digital Indicator    | 100 Ton             |
| 4.     | LC - 15000 | Compression Type  | Load Cell Mechanism for Rotary Slip with Digital Indicator    | 150 Ton             |
| 5.     | LC - 25000 | Compression Type  | Load Cell Mechanism for Rotary Slip with Digital Indicator    | 250 Ton             |
| 6.     | LC - 50000 | Compression Type  | Load Cell Mechanism for Master Bushing with Digital Indicator | 500 Ton             |



# **DIES & INSERTS**

At our company, we leverage customized manufacturing techniques to ensure the highest quality, perfect fit, and extended lifespan for our dies and inserts. Our commitment to excellence is reflected in every step of the process, from superior material selection and precision machining to exceptional heat treatment and stress relief procedures. Our decades of experience in die and insert specialization further enhance the quality of our products.

The innovative design of Autobahn dies and inserts leads to enhanced performance and reduced maintenance costs. By integrating functionality and innovation into traditional die and insert designs, we create products that perform better, last longer, and are more cost-effective.

Our extensive product range includes dies, inserts, and spare parts for a variety of oilfield handling tools, such as:

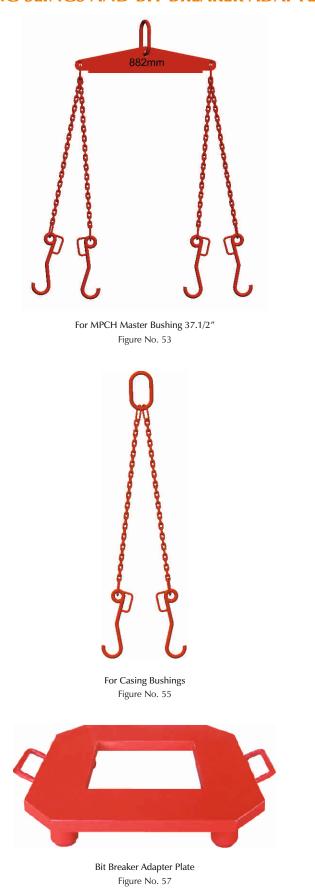
- 1. Rotary Slips
- 2. Drill Collar Slips
- 3. Casing Slips
- 4. Safety Clamps
- 5. Manual Tongs
- 6. Tubing Spiders
- 7. Power Tongs

We also offer the capability to manufacture customized dies to meet specific requirements.



Different Types of Dies & Inserts Figure No. 52

# AUTOBAHN INDUSTRIES CORPARY with Insolution LIFTING SLINGS AND BIT BREAKER ADAPTER PLATE





For Kelly Bushing & Power Slip Figure No. 54



For Insert Bowls Figure No. 56



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