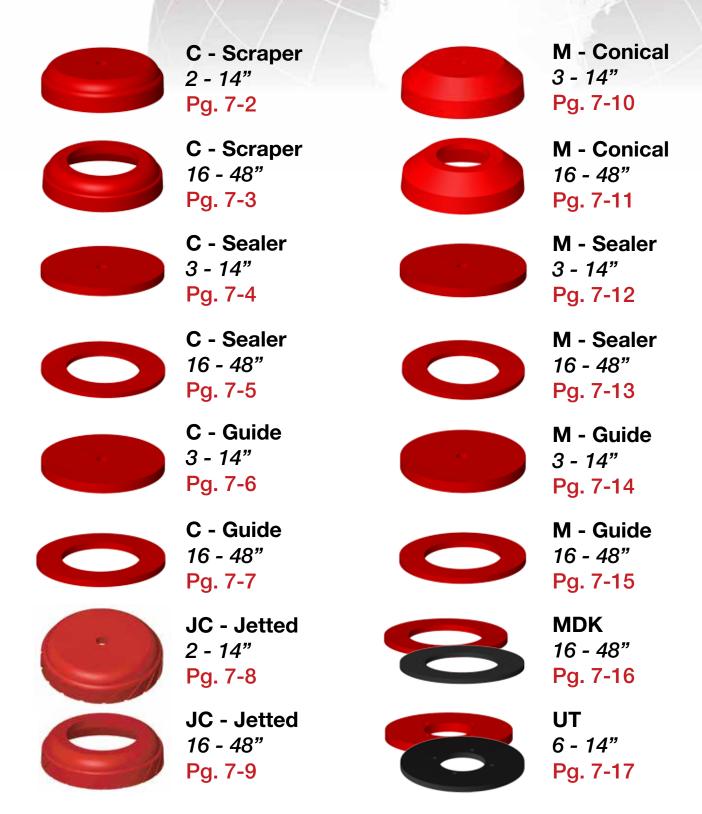
### PIG REPLACEMENT PARTS



### SCRAPER CUP

2-14" (51-356mm)



| Size | O.D    | I.D  | Weight | Part # 86A |
|------|--------|------|--------|------------|
| 2"   | 2.125  | 0.50 | 0.1    | 91-3015-02 |
| 3"   | 3.375  | 0.50 | 0.2    | 91-3015-03 |
| 4"   | 4.375  | 0.50 | 0.4    | 91-3015-04 |
| 6"   | 6.375  | 1.00 | 1.1    | 91-3015-06 |
| 8"   | 8.500  | 1.00 | 1.9    | 91-3015-08 |
| 10"  | 10.625 | 1.00 | 3.7    | 91-3015-10 |
| 12"  | 12.750 | 1.00 | 6.1    | 91-3015-12 |
| 14"  | 13.875 | 1.00 | 8.0    | 91-3015-14 |

The unique design of the Series C Cup provides both the cleaning advantages of a scraper cup and the flexibility of a conical cup. The wear surface is three times larger than any other scraper, which promotes longer cup life, while the pressure of the product keeps the cutting edge firmly against the pipe wall to provide an optimum seal. The flex area between the shank and the cleaning surface allows the Apache cup to traverse 15% reductions in pipe bore caused by buckling or flattening of the pipeline.

### SCRAPER CUP

16-48" (406-1219mm)

The unique design of the Series C Cup provides both the cleaning advantages of a scraper cup and the flexibility of a conical cup. The wear surface is three times larger than any other scraper, which promotes longer cup life, while the pressure of the product keeps the cutting edge firmly against the pipe wall to provide an optimum seal. The flex area between the shank and the cleaning surface allows the Apache cup to traverse 15% reductions in pipe bore caused by buckling or flattening of the pipeline.

| Size | O.D    | I.D    | Weight | Part # 86A |
|------|--------|--------|--------|------------|
| 16"  | 16.000 | 8.750  | 8.9    | 91-3015-16 |
| 18"  | 17.875 | 10.875 | 11     | 91-3015-18 |
| 20"  | 19.875 | 10.875 | 18     | 91-3015-20 |
| 22"  | 21.875 | 10.875 | 25     | 91-3015-22 |
| 24"  | 23.875 | 14.125 | 30     | 91-3015-24 |
| 26"  | 25.875 | 14.125 | 37     | 91-3015-26 |
| 28"  | 27.875 | 16.125 | 43     | 91-3015-28 |
| 30"  | 29.875 | 16.125 | 50     | 91-3015-30 |
| 32"  | 32.000 | 20.125 | 52     | 91-3015-32 |
| 34"  | 34.000 | 20.125 | 69     | 91-3015-34 |
| 36"  | 36.000 | 22.125 | 74     | 91-3015-36 |
| 42"  | 42.125 | 24.125 | 117    | 91-3015-42 |
| 48"  | 47.750 | 32.125 | 156    | 91-3015-48 |



## SEALER DISCS

3-14" (76-356mm)

Apache discs can be used in both bi-directional and uni-directional applications, or in conjunction with Series C cups as sealing or guide discs. The dimensions, durometer or composition of the discs can be varied to meet any special requirements.



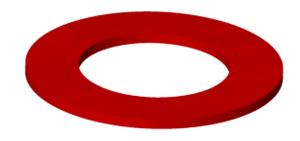
| Size | O.D    | I.D   | Weight | Part #     |
|------|--------|-------|--------|------------|
| 3"   | 3.375  | 0.500 | 0.1    | 91-3210-03 |
| 4"   | 4.375  | 0.500 | 0.2    | 91-3210-04 |
| 6"   | 6.375  | 1.000 | 0.5    | 91-3210-06 |
| 8"   | 8.375  | 1.000 | 1.2    | 91-3210-08 |
| 10"  | 10.500 | 1.000 | 1.9    | 91-3210-10 |
| 12"  | 12.500 | 1.000 | 3.3    | 91-3210-12 |
| 14"  | 13.875 | 1.000 | 4.1    | 91-3210-14 |

## SEALER DISCS

16-48" (406-1219mm)

Apache discs can be used in both bi-directional and uni-directional applications, or in conjunction with Series C cups as sealing or guide discs. The dimensions, durometer or composition of the discs can be varied to meet any special requirements.

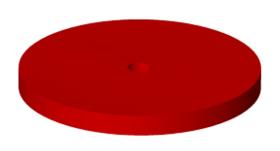
| Size | O.D    | I.D    | Weight | Part #     |
|------|--------|--------|--------|------------|
| 16"  | 15.875 | 8.750  | 4.5    | 91-3210-16 |
| 18"  | 17.875 | 10.875 | 5.2    | 91-3210-18 |
| 20"  | 20.000 | 10.875 | 8.4    | 91-3210-20 |
| 22"  | 22.000 | 10.875 | 11     | 91-3210-22 |
| 24"  | 24.125 | 14.125 | 13     | 91-3210-24 |
| 26"  | 26.125 | 14.125 | 17     | 91-3210-26 |
| 28"  | 28.250 | 16.125 | 21     | 91-3210-28 |
| 30"  | 30.250 | 16.125 | 25     | 91-3210-30 |
| 32"  | 32.375 | 20.125 | 27     | 91-3210-32 |
| 34"  | 34.375 | 20.125 | 33     | 91-3210-34 |
| 36"  | 36.500 | 22.125 | 40     | 91-3210-36 |
| 38"  | 38.500 | 22.125 | 47     | 91-3210-38 |
| 40"  | 40.625 | 22.125 | 54     | 91-3210-40 |
| 42"  | 42.125 | 24.125 | 63     | 91-3210-42 |
| 48"  | 48.875 | 32.125 | 81     | 91-3210-48 |



# **GUIDE DISCS**

3-14" (76-356mm)

Apache discs can be used in both bi-directional and uni-directional applications, or in conjunction with Series C cups as sealing or guide discs. The dimensions, durometer or composition of the discs can be varied to meet any special requirements.



| Size | O.D    | I.D   | Weight | Part #     |
|------|--------|-------|--------|------------|
| 3"   | 3.000  | 0.50  | 0.12   | 91-3220-03 |
| 4"   | 4.000  | 0.500 | 0.2    | 91-3220-04 |
| 6"   | 6.000  | 1.000 | 0.7    | 91-3220-06 |
| 8"   | 8.000  | 1.000 | 1.6    | 91-3220-08 |
| 10"  | 10.000 | 1.000 | 2.5    | 91-3220-10 |
| 12"  | 12.000 | 1.000 | 4.2    | 91-3220-12 |
| 14"  | 13.250 | 1.000 | 5.2    | 91-3220-14 |

# Series C

# **GUIDE DISCS**

16-48" (406-1219mm)

Apache discs can be used in both bi-directional and uni-directional applications, or in conjunction with Series C cups as sealing or guide discs. The dimensions, durometer or composition of the discs can be varied to meet any special requirements.

| Size | O.D    | I.D    | Weight | Part #     |
|------|--------|--------|--------|------------|
| 16"  | 15.250 | 8.750  | 6.0    | 91-3220-16 |
| 18"  | 17.250 | 10.875 | 6.9    | 91-3220-18 |
| 20"  | 19.250 | 10.875 | 11     | 91-3220-20 |
| 22"  | 21.250 | 10.875 | 14     | 91-3220-22 |
| 24"  | 23.250 | 14.125 | 15     | 91-3220-24 |
| 26"  | 25.500 | 14.125 | 19     | 91-3220-26 |
| 28"  | 27.250 | 16.125 | 25     | 91-3220-28 |
| 30"  | 29.250 | 16.125 | 31     | 91-3220-30 |
| 32"  | 31.250 | 20.125 | 32     | 91-3220-32 |
| 34"  | 33.250 | 20.125 | 39     | 91-3220-34 |
| 36"  | 35.250 | 22.125 | 45     | 91-3220-36 |
| 38"  | 37.250 | 22.125 | 54     | 91-3220-38 |
| 40"  | 39.250 | 22.125 | 63     | 91-3220-40 |
| 42"  | 41.250 | 24.250 | 76     | 91-3220-42 |
| 48"  | 47.250 | 32.125 | 97     | 91-3220-48 |



# JETTED CUP

2-14" (51-356mm)

The Jetted Cup works well in oil, gas and products pipelines. It eliminates the large accumulations of wax left in scraper traps after the arrival of cleaning pigs. The grooves on the lip of the cup provide increased scraping and cutting action of standard cups. The design of the jetting grooves causes the pig to rotate as it travels ensuring even wear of the cup, increasing cup life and reducing operating costs.



| Size | O.D    | I.D  | Weight | Part #     |
|------|--------|------|--------|------------|
| 2"   | 2.125  | 0.50 | 0.1    | 91-3998-02 |
| 3"   | 3.375  | 0.50 | 0.2    | 91-3998-03 |
| 4"   | 4.375  | 0.50 | 0.4    | 91-3998-04 |
| 6"   | 6.375  | 1.00 | 1.1    | 91-3998-06 |
| 8"   | 8.500  | 1.00 | 1.9    | 91-3998-08 |
| 10"  | 10.625 | 1.00 | 3.7    | 91-3998-10 |
| 12"  | 12.750 | 1.00 | 6.1    | 91-3998-12 |
| 14"  | 13.875 | 1.00 | 8.0    | 91-3998-14 |



The turbulence created, jets away debris from in front of the cleaning pig. The grooves in the surface of the cup allow a calibrated amount of fluid to pass along the wall of the pipe to jet away wax, sand and other debris.





Check out apachepipe.com/animations.html for videos on jetted cups.

### JETTED CUP

16-48" (406-1219mm)

| Size | O.D    | I.D    | Weight | Part #     |
|------|--------|--------|--------|------------|
| 16"  | 16.000 | 8.750  | 8.9    | 91-3998-16 |
| 18"  | 17.875 | 10.875 | 11     | 91-3998-18 |
| 20"  | 19.875 | 10.875 | 18     | 91-3998-20 |
| 24"  | 23.875 | 14.125 | 30     | 91-3998-24 |
| 26"  | 25.875 | 14.125 | 37     | 91-3998-26 |
| 30"  | 29.875 | 16.125 | 50     | 91-3998-30 |
| 34"  | 34.000 | 20.125 | 69     | 91-3998-34 |
| 36"  | 36.000 | 22.125 | 74     | 91-3998-36 |
| 42"  | 42.125 | 24.125 | 117    | 91-3998-42 |
| 48"  | 47.750 | 32.125 | 156    | 91-3998-48 |





The turbulence created, jets away debris from in front of the cleaning pig. The grooves in the surface of the cup allow a calibrated amount of fluid to pass along the wall of the pipe to jet away wax, sand and other debris.





Check out apachepipe.com/animations.html for videos on jetted cups.

### CONICAL CUP

3-14" (76-356mm)



| Size | O.D    | I.D   | Weight | Part #     |
|------|--------|-------|--------|------------|
| 3"   | 3.375  | 0.500 | 0.5    | 91-5010-03 |
| 4"   | 4.375  | 0.500 | 0.5    | 91-5010-04 |
| 6"   | 6.500  | 1.000 | 1.0    | 91-5010-06 |
| 8"   | 8.375  | 1.000 | 1.7    | 91-5010-08 |
| 10"  | 10.500 | 1.000 | 3.0    | 91-5010-10 |
| 12"  | 12.500 | 1.000 | 4.1    | 91-5010-12 |
| 14"  | 14.000 | 1.000 | 6.3    | 91-5010-14 |

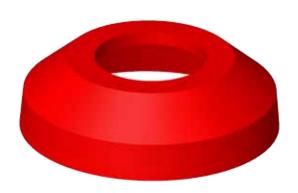
The wide sealing surface provides long cup life, while the flexible design gives a continuous seal in the pipeline. Pipeline cleaners mounted with this cup can negotiate pipe bore reductions of up to 20%. All Series M Cups are manufactured from high quality polyurethane and are available with a variety of wear resistant additives. Apache has also developed a proprietary chemicallyresistant urethane suited specifically for severe environments such as hydrogen sulphide gas.

### CONICAL CUP

16-48" (406-1219mm)

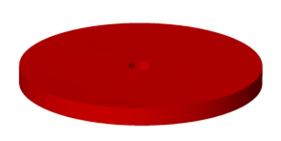
The wide sealing surface provides long cup life, while the flexible design gives a continuous seal in the pipeline. Pipeline cleaners mounted with this cup can negotiate pipe bore reductions of up to 20%. All Series M Cups are manufactured from high quality polyurethane and are available with a variety of wear resistant additives. Apache has also developed a proprietary chemicallyresistant urethane suited specifically for severe environments such as hydrogen sulphide gas.

| Size | O.D    | I.D    | Weight | Part #     |
|------|--------|--------|--------|------------|
| 16"  | 15.875 | 6.750  | 8.2    | 91-5010-16 |
| 18"  | 18.000 | 8.375  | 12     | 91-5010-18 |
| 20"  | 20.000 | 8.375  | 14     | 91-5010-20 |
| 22"  | 22.000 | 10.375 | 21     | 91-5010-22 |
| 24"  | 24.000 | 10.375 | 27     | 91-5010-24 |
| 26"  | 26.000 | 12.375 | 32     | 91-5010-26 |
| 28"  | 28.000 | 12.375 | 42     | 91-5010-28 |
| 30"  | 29.875 | 15.375 | 50     | 91-5010-30 |
| 32"  | 32.000 | 15.375 | 59     | 91-5010-32 |
| 34"  | 34.000 | 17.375 | 79     | 91-5010-34 |
| 36"  | 36.000 | 17.375 | 90     | 91-5010-36 |
| 38"  | 38.000 | 20.375 | 105    | 91-5010-38 |
| 40"  | 40.000 | 20.375 | 148    | 91-5010-40 |
| 42"  | 42.000 | 20.375 | 213    | 91-5010-42 |
| 48"  | 48.000 | 24.375 | 246    | 91-5010-48 |



## SEALER DISCS

3-14" (76-356mm)



| Size | O.D    | I.D   | Thick | Weight | Part #     |
|------|--------|-------|-------|--------|------------|
| 3"   | 3.375  | 0.500 | 0.125 | 0.1    | 91-5210-03 |
| 4"   | 4.375  | 0.500 | 0.250 | 0.2    | 91-5210-04 |
| 6"   | 6.375  | 1.000 | 0.375 | 0.5    | 91-5210-06 |
| 8"   | 8.375  | 1.000 | 0.500 | 1.2    | 91-5210-08 |
| 10"  | 10.500 | 1.000 | 0.500 | 1.9    | 91-5210-10 |
| 12"  | 12.500 | 1.000 | 0.625 | 3.3    | 91-5210-12 |
| 14"  | 13.875 | 1.000 | 0.625 | 4.1    | 91-5210-14 |

<sup>\*</sup>Part numbers shown are for 85 Durometer (62 and 72 also available)

Apache discs can be used in both bi-directional and uni-directional applications, or in conjunction with Series M cups as sealing or guide discs. The dimensions, durometer or composition of the discs can be varied to meet any special requirements.

# Series M

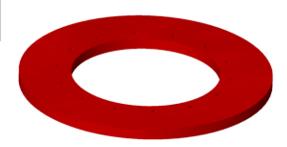
### SEALER DISCS

16-48" (406-1219mm)

Apache discs can be used in both bi-directional and uni-directional applications, or in conjunction with Series M cups as sealing or guide discs. The dimensions, durometer or composition of the discs can be varied to meet any special requirements.

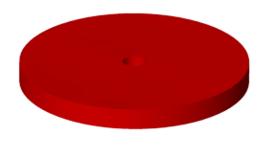
| Size | O.D    | I.D    | Thick | Weight | Part #     |
|------|--------|--------|-------|--------|------------|
| 16"  | 15.875 | 6.750  | 0.750 | 5.1    | 91-5210-16 |
| 18"  | 17.875 | 8.375  | 0.750 | 6.4    | 91-5210-18 |
| 20"  | 20.000 | 8.375  | 0.875 | 9.7    | 91-5210-20 |
| 22"  | 22.000 | 10.375 | 0.875 | 11     | 91-5210-22 |
| 24"  | 24.125 | 10.375 | 1.000 | 16     | 91-5210-24 |
| 26"  | 26.125 | 12.375 | 1.000 | 18     | 91-5210-26 |
| 28"  | 28.250 | 12.375 | 1.125 | 25     | 91-5210-28 |
| 30"  | 30.250 | 15.375 | 1.125 | 26     | 91-5210-30 |
| 32"  | 32.375 | 15.375 | 1.250 | 34     | 91-5210-32 |
| 34"  | 34.375 | 17.375 | 1.250 | 37     | 91-5210-34 |
| 36"  | 36.500 | 17.375 | 1.375 | 44     | 91-5210-36 |
| 38"  | 38.500 | 20.875 | 1.375 | 44     | 91-5210-38 |
| 40"  | 40.625 | 20.875 | 1.375 | 51     | 91-5210-40 |
| 42"  | 42.125 | 20.875 | 1.500 | 64     | 91-5210-42 |
| 48"  | 48.875 | 24.875 | 1.750 | 90     | 91-5210-48 |

<sup>\*</sup>Part numbers shown are for 85 Durometer (62 and 72 also available)



# **GUIDE DISCS**

3-14" (76-356mm)



| Size | O.D    | I.D   | Thick | Weight | Part #     |
|------|--------|-------|-------|--------|------------|
| 3"   | 3.000  | 0.50  | 0.375 | 0.1    | 91-5220-03 |
| 4"   | 4.000  | 0.500 | 0.375 | 0.2    | 91-5220-04 |
| 6"   | 6.000  | 1.000 | 0.625 | 0.7    | 91-5220-06 |
| 8"   | 8.000  | 1.000 | 0.750 | 1.6    | 91-5220-08 |
| 10"  | 10.000 | 1.000 | 0.750 | 2.5    | 91-5220-10 |
| 12"  | 12.000 | 1.000 | 0.875 | 4.2    | 91-5220-12 |
| 14"  | 13.250 | 1.000 | 0.875 | 5.2    | 91-5220-14 |

Apache discs can be used in both bi-directional and uni-directional applications, or in conjunction with Series M cups as sealing or guide discs. The dimensions, durometer or composition of the discs can be varied to meet any special requirements.

## **GUIDE DISCS**

16-48" (406-1219mm)

Apache discs can be used in both bi-directional and uni-directional applications, or in conjunction with Series M cups as sealing or guide discs. The dimensions, durometer or composition of the discs can be varied to meet any special requirements.

| Size | O.D    | I.D    | Thick | Weight | Part #     |
|------|--------|--------|-------|--------|------------|
| 16"  | 15.250 | 6.750  | 1.125 | 7.2    | 91-5220-16 |
| 18"  | 17.250 | 8.375  | 1.125 | 8.7    | 91-5220-18 |
| 20"  | 19.250 | 8.375  | 1.250 | 13     | 91-5220-20 |
| 22"  | 21.250 | 10.375 | 1.250 | 15     | 91-5220-22 |
| 24"  | 23.250 | 10.375 | 1.250 | 19     | 91-5220-24 |
| 26"  | 25.250 | 12.375 | 1.250 | 21     | 91-5220-26 |
| 28"  | 27.250 | 12.375 | 1.500 | 30     | 91-5220-28 |
| 30"  | 29.250 | 15.375 | 1.500 | 32     | 91-5220-30 |
| 32"  | 31.250 | 15.375 | 1.625 | 41     | 91-5220-32 |
| 34"  | 33.250 | 17.375 | 1.625 | 45     | 91-5220-34 |
| 36"  | 35.250 | 17.375 | 1.750 | 56     | 91-5220-36 |
| 38"  | 37.250 | 20.875 | 1.750 | 57     | 91-5220-38 |
| 40"  | 39.250 | 20.875 | 1.750 | 66     | 91-5220-40 |
| 42"  | 41.250 | 20.875 | 2.000 | 86     | 91-5220-42 |
| 48"  | 47.250 | 24.875 | 2.375 | 131    | 91-5220-48 |



### SEALER DISC

16-48" (406-1219mm)

| Size | O.D    | I.D    | #     | Weight | Part #     |
|------|--------|--------|-------|--------|------------|
|      |        |        | Holes |        |            |
| 16"  | 15.875 | 8.750  | 12    | 4.5    | 91-7200-16 |
| 20"  | 20.000 | 10.870 | 12    | 7.9    | 91-7200-20 |
| 24"  | 24.125 | 14.180 | 12    | 14.2   | 91-7200-24 |
| 30"  | 30.250 | 18.150 | 12    | 22     | 91-7200-30 |
| 36"  | 36.500 | 22.250 | 12    | 38     | 91-7200-36 |
| 42"  | 42.125 | 26.250 | 12    | 55     | 91-7200-42 |
| 48"  | 48.875 | 28.250 | 12    | 71     | 91-7200-48 |



<sup>\*</sup>Part numbers shown are for 72 Durometer (62 and 85 also available)

All MDK are on a metric bolt pattern and only have 12 holes per disc.

### GUIDE DISC

16-48" (406-1219mm)

| Size | O.D    | I.D    | #<br>Holes | Weight | Part #     |
|------|--------|--------|------------|--------|------------|
| 16"  | 15.250 | 8.750  | 12         | 5.9    | 91-7205-16 |
| 20"  | 19.250 | 10.870 | 12         | 8.8    | 91-7205-20 |
| 24"  | 23.250 | 14.180 | 12         | 19     | 91-7205-24 |
| 30"  | 29.250 | 18.150 | 12         | 30     | 91-7205-30 |
| 36"  | 35.250 | 22.250 | 12         | 48     | 91-7205-36 |
| 42"  | 41.250 | 26.250 | 12         | 83     | 91-7205-42 |
| 48"  | 47.250 | 28.250 | 12         | 123    | 91-7205-48 |



MDK-ED pigs are equipped with durable guide discs, one at each end. The guide discs provide a positive centering affect which allow the four sealing discs in the center to effectively seal during the displacement period.

### SEALER DISC

6-14" (152-356mm)

| Size | O.D    | I.D   | Weight | Part #     |
|------|--------|-------|--------|------------|
| 6"   | 6.375  | 2.500 | 0.5    | 91-4210-06 |
| 8"   | 8.375  | 3.000 | 1.1    | 91-4210-08 |
| 10"  | 10.500 | 3.625 | 1.7    | 91-4210-10 |
| 12"  | 12.500 | 4.625 | 3.1    | 91-4210-12 |
| 14"  | 13.875 | 4.625 | 3.6    | 91-4210-14 |



<sup>\*</sup>Part numbers shown are for 85 Durometer (62 and 72 also available)

### **GUIDE DISC**

6-14" (152-356mm)

| Size | O.D    | I.D   | Weight | Part #     |
|------|--------|-------|--------|------------|
| 6"   | 6.000  | 2.500 | 0.6    | 91-4220-06 |
| 8"   | 8.000  | 3.000 | 1.3    | 91-4220-08 |
| 10"  | 10.000 | 3.625 | 2.4    | 91-4220-10 |
| 12"  | 12.000 | 4.625 | 4.0    | 91-4220-12 |
| 14"  | 13.750 | 4.625 | 5.0    | 91-4220-14 |



Apache discs can be used in both bi-directional and uni-directional applications. The dimensions, durometer or composition of the discs can be varied to meet any special requirements. All Apache discs are manufactured from high quality polyurethane and are available with a variety of wear resistant additives. Apache has also developed a proprietary chemically-resistant urethane suited specifically for severe environments such as hydrogen sulphide gas.