# BEAVER® WORKING LOAD LIMITS FOR SAFER LIFTING

## Grade 80 Chain Slings TO AS 3775

| CHAIN DIA. | SINGLE LEG SLINGS | | | SLINGS OF 2, 3 OR 4 LEGS | | | | ENDLESS SLINGS |
|---|---|---|---|---|---|---|---|---|
| mm | STRAIGHT SLING | ADJUSTABLE SLING | REEVED SLING | 60° | 90° | 120° | 60° MAX | 60° MAX |
| MAXIMUM WORKING LOAD LIMITS IN TONNES OF 1000KG | | | | | | | | |
| 6 | 1.1 | 0.8 | 0.8 | 1.9 | 1.6 | 1.1 | 1.5 | 1.5 |
| 7 | 1.5 | 1.1 | 1.1 | 2.6 | 2.1 | 1.5 | 2.0 | 2.0 |
| 8 | 2.0 | 1.5 | 1.5 | 3.5 | 2.8 | 2.0 | 2.6 | 2.6 |
| 10 | 3.2 | 2.4 | 2.4 | 5.5 | 4.5 | 3.2 | 4.1 | 4.1 |
| 13 | 5.3 | 4.0 | 4.0 | 9.2 | 7.5 | 5.3 | 6.9 | 6.9 |
| 16 | 8.0 | 6.0 | 6.0 | 13.8 | 11.3 | 8.0 | 10.4 | 10.4 |
| 20 | 12.5 | 9.4 | 9.4 | 21.6 | 17.6 | 12.5 | 16.3 | 16.3 |
| 22 | 15.0 | 11.3 | 11.3 | 26.0 | 21.2 | 15.0 | 19.5 | 19.5 |
| 26 | 21.2 | 15.9 | 15.9 | 36.7 | 29.9 | 21.2 | 27.6 | 27.6 |
| 32 | 31.5 | 23.6 | 23.6 | 54.5 | 44.4 | 31.5 | 41.0 | 41.0 |

### BEAVER ALLOY GRADE 80 CHAIN SLINGS Care and Usage Instructions

**BEAVER ALLOY GRADE 80 CHAIN SLINGS SHOULD ONLY BE USED BY A COMPETENT PERSON**

**Maximum Working Load Limit in Tonnes of 1000kg, under general conditions of use.**

- DO NOT EXCEED WORKING LOAD LIMIT
- DO NOT EXCEED 120°
- WLL at 60° must never be exceeded, even at smaller angles.
- WLL at other angles - apply the next greater angle and relevant load factor.

Extreme care should be taken when using the Beaver Grade 80 Chain Slings in high temperature enviroments. It is therefore our instruction that the user must always err on the side of caution and make ample provisions for reduced Working Load Limits. The following are our instructions:

**ACIDIC CONDITIONS**
Beaver Alloy Grade 80 slings shall not be used in acidic solutions or in any other corrosive environment.

**TEMPERATURE CONDITIONS**
-10°C up to 200° C No reduction in WLL
200°C up to 300°C Reduce WLL by 10%
300°C up to 400°C Reduce WLL by 25%
**Do not use above 400°C**

**GALVANISING**
Beaver alloy chains and fittings should not be hot-dip galvanised or electro-plated, except by Beaver. Galvanised slings must always have the Working Load Limits reduced by 20%.

**The WLL of a sling must not exceed the lowest working load limit of the components in the system.**

## Grade S Shackles WITH YELLOW PAINTED PIN TO AS 2741

| WORKING LOAD LIMIT Metric Tonnes | DIA. Ød mm | DIA. PIN ØD mm | INSIDE WIDTH W mm | INSIDE LENGTH DEE TYPE L mm | INSIDE LENGTH BOW TYPE L mm | WIDTH OF BOW B mm | APPROX. WEIGHT EACH SCREW PIN kg | APPROX. WEIGHT EACH SAFETY PIN kg |
|---|---|---|---|---|---|---|---|---|
| 0.33 | 5 | 6 | 10 | — | 22 | 15 | 0.02 | — |
| 0.50 | 6 | 8 | 12 | 22 | 29 | 20 | 0.06 | 0.07 |
| 0.75 | 8 | 10 | 13 | 26 | 31 | 21 | 0.11 | 0.13 |
| 1.00 | 10 | 11 | 17 | 32 | 37 | 26 | 0.15 | 0.17 |
| 1.50 | 11 | 13 | 18 | 37 | 43 | 29 | 0.21 | 0.25 |
| 2.00 | 13 | 16 | 21 | 41 | 48 | 33 | 0.37 | 0.44 |
| 3.20 | 16 | 19 | 27 | 51 | 61 | 43 | 0.65 | 0.79 |
| 4.70 | 19 | 22 | 32 | 60 | 72 | 51 | 1.06 | 1.26 |
| 6.50 | 22 | 25 | 37 | 71 | 84 | 58 | 1.56 | 1.88 |
| 8.50 | 25 | 29 | 43 | 81 | 95 | 68 | 2.32 | 2.78 |
| 9.50 | 29 | 32 | 46 | 90 | 108 | 74 | 3.28 | 3.87 |
| 12.00 | 32 | 35 | 52 | 100 | 119 | 83 | 4.51 | 5.26 |
| 13.50 | 35 | 38 | 57 | 113 | 133 | 92 | 5.43 | 6.94 |
| 17.00 | 38 | 41 | 60 | 124 | 146 | 98 | 7.89 | 8.79 |
| 25.00 | 44 | 51 | 73 | 146 | 178 | 127 | 13.40 | 14.99 |
| 35.00 | 51 | 57 | 83 | 171 | 197 | 146 | 18.85 | 20.65 |
| 45.00 | 57 | 63 | 95 | 181 | 222 | 160 | 26.06 | 29.01 |
| 55.00 | 63 | 70 | 105 | 203 | 267 | 184 | 37.86 | 41.05 |
| 85.00 | 76 | 83 | 127 | 229 | 330 | 200 | 58.68 | 62.24 |
| 120.00 | 89 | 95 | 146 | 267 | 381 | 241 | — | 110.00 |
| 150.00 | 102 | 108 | 165 | 318 | 432 | 279 | — | 160.00 |

OTHER SIZES UP TO 1000 TONNES AVAILABLE ON REQUEST

Beaver Dee Shackle with Screw Pin

Beaver Bow Shackle with Screw Pin

Beaver Safety Dee Shackle Bolt Type

Beaver Safety Bow Shackle Bolt Type

## Polyester Round Slings & Flat Webbing Slings

All Beaver Round & Flat Slings are proof tested.

Test Certificate supplied with all slings.

| ROUND SLINGS CODE | FLAT SLINGS CODE | COLOUR CODE | WLL Tonnes | VERTICAL WLL Tonnes | CHOKE WLL Tonnes | BASKET WLL Tonnes | 60° WLL Tonnes | 90° WLL Tonnes | 120° WLL Tonnes | 60° WLL Tonnes | 60° WLL Tonnes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ROUND SLINGS Comply to AS 4497 | | | | | | | | | | | |
| FLAT SLINGS Comply to AS 1353 | | | | | | | | | | | |
| | | L = LOAD FACTOR | | L=1.0 | L = 0.8 | L = 0.2 | L = 1.7 | L = 1.4 | L = 1.0 | L = 1.7 | L = 1.38 |
| MRS1000 | FS-2-1000 | Violet | 1.0 | 1.0 | 0.8 | 2.0 | 1.73 | 1.41 | 1.0 | 1.73 | 1.38 |
| MRS2000 | FS-2-2000 | Green | 2.0 | 2.0 | 1.6 | 4.0 | 3.46 | 2.82 | 2.0 | 3.46 | 2.76 |
| MRS3000 | FS-2-3000 | Yellow | 3.0 | 3.0 | 2.4 | 6.0 | 5.19 | 4.23 | 3.0 | 5.19 | 4.14 |
| MRS4000 | FS-2-4000 | Grey | 4.0 | 4.0 | 3.2 | 8.0 | 6.92 | 5.63 | 4.0 | 6.92 | 5.52 |
| MRS5000 | FS-2-5000 | Red | 5.0 | 5.0 | 4.0 | 10.0 | 8.65 | 7.05 | 5.0 | 8.65 | 6.90 |
| MRS6000 | FS-2-6000 | Brown | 6.0 | 6.0 | 4.8 | 12.0 | 10.38 | 8.46 | 6.0 | 10.38 | 8.28 |
| MRS8000 | FS-2-8000 | Blue | 8.0 | 8.0 | 6.4 | 16.0 | 13.84 | 11.28 | 8.0 | 13.84 | 11.04 |
| MRS10000 | FS-2-10000 | Orange | 10.0 | 10.0 | 8.0 | 20.0 | 17.30 | 14.10 | 10.0 | 17.30 | 13.80 |

The information contained within the above tables is taken from the relevant Australian Standards and was correct at the time of publication.

## Grade 100 Chain Slings TO AS 3775

| CHAIN DIA. | SINGLE LEG SLINGS | | | SLINGS OF 2, 3 OR 4 LEGS | | | | ENDLESS SLINGS |
|---|---|---|---|---|---|---|---|---|
| mm | STRAIGHT SLING | ADJUSTABLE SLING W/ DERATION | REEVED SLING | 60° | 90° | 120° | 60° MAX | 60° MAX |
| MAXIMUM WORKING LOAD LIMITS IN TONNES OF 1000KG | | | | | | | | |
| 6 | 1.4 | 1.1 | 0.8 | 2.4 | 2.0 | 1.4 | 1.8 | 1.8 |
| 8 | 2.5 | 1.9 | 1.4 | 4.3 | 3.5 | 2.5 | 3.3 | 3.3 |
| 10 | 4.0 | 3.0 | 2.3 | 6.9 | 5.6 | 4.0 | 5.2 | 5.2 |
| 13 | 6.7 | 5.0 | 3.8 | 11.6 | 9.4 | 6.7 | 8.7 | 8.7 |
| 16 | 10.0 | 7.5 | 5.6 | 17.3 | 14.1 | 10.0 | 13.0 | 13.0 |
| 20 | 16.0 | 12.0 | 7.0 | 27.7 | 22.6 | 16.0 | 20.8 | 20.8 |
| 22 | 19.0 | 14.3 | 10.7 | 32.9 | 26.5 | 19.0 | 24.7 | 24.7 |
| 26 | 26.5 | 19.9 | 14.9 | 45.8 | 37.4 | 26.5 | 34.5 | 34.5 |
| 32 | 40.0 | 30.0 | 22.5 | 69.2 | 56.4 | 40.0 | 52.0 | 52.0 |

**GRADE 100 & 120 CHAIN SLINGS SHOULD ONLY BE USED BY A COMPETENT PERSON.**

**Maximum Working Load Limit in Tonnes of 1000kg, under general conditions of use.**

- DO NOT EXCEED WORKING LOAD LIMIT
- DO NOT EXCEED 120°
- WLL at other angles - apply the next greater angle and relevant load factor
- Some Shortening Hooks & Grab Hooks with cradle configuration, may not derate the WLL for the sling.

**⚠ SAFETY WARNING OF HAZARDOUS CONDITIONS:**

Extreme care should be taken when using the Beaver Grade 100 & 120 Chain and fittings in high temperature enviroments. It is therefore our instruction that the user must always err on the side of caution and NEVER EXCEED 200°C

## Grade 50 Stainless Steel Chain Slings TO AS 4797

| CHAIN DIA. | SINGLE LEG SLINGS | | SLINGS OF 2, 3 OR 4 LEGS | | | | | | ENDLESS SLINGS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | STRAIGHT SLING | REEVED SLING | 60° | 90° | 120° | 60° | 90° | 120° | 60° | 90° | 120° | REEVED SLING |
| MAXIMUM WORKING LOAD LIMITS IN TONNES OF 1000KG | | | | | | | | | | | | |
| 5 | 0.50 | 0.40 | 0.85 | 0.70 | 0.5 | 0.68 | 0.65 | 0.40 | 0.68 | 0.56 | 0.40 | 0.80 |
| 7 | 1.00 | 0.80 | 1.70 | 1.40 | 1.0 | 1.36 | 1.12 | 0.80 | 1.36 | 1.12 | 0.80 | 1.60 |
| 10 | 2.00 | 1.60 | 3.40 | 2.80 | 2.0 | 2.72 | 2.24 | 1.60 | 2.72 | 2.24 | 1.60 | 3.20 |
| 13 | 3.20 | 2.56 | 5.44 | 4.48 | 3.2 | 4.35 | 3.58 | 2.56 | 4.35 | 3.58 | 2.56 | 5.12 |
| 16 | 5.00* | 4.00 | 8.50* | 7.00* | 5.0* | 6.80 | 5.60 | 4.00 | 6.80 | 5.60 | 4.00 | 8.00 |

*10% Reduction with HSK16

**Grade 50 chain slings should only be used a competent person.**
**Maximum Working Load Limit in tonnes of 1000kg, under general conditions of use.**

- Do not exceed Working Load Limit
- Do not exceed 120º
- WLL at other angles – apply the next greater angle and relevant load factor
- Never exceed 200ºC

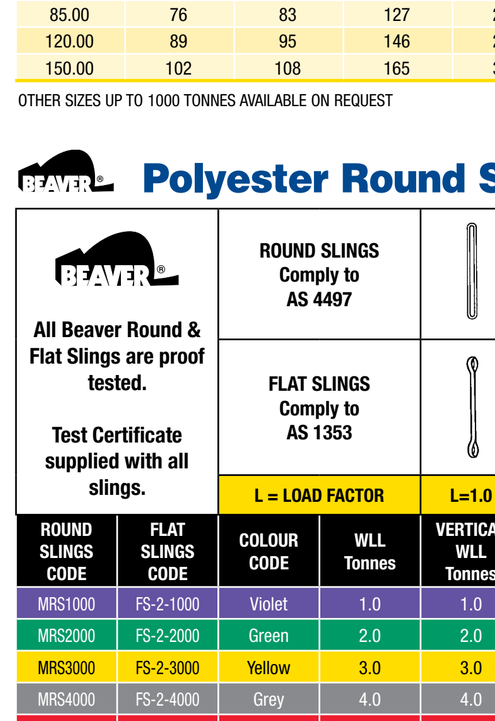
## Wire Rope Slings TO AS 1666

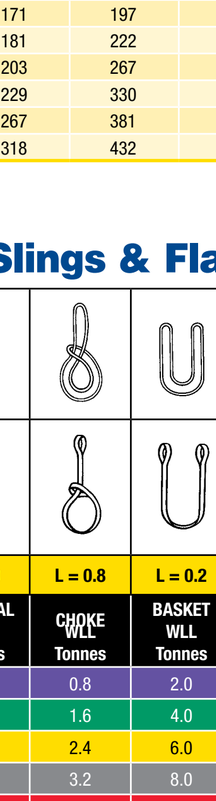
| WIRE ROPE DIA. mm | DIRECT LOAD | CHOKE HITCH ROUND LOAD | CHOKE HITCH RECTANGULAR LOAD | DIRECT LOAD 0° - 60° | DIRECT LOAD 90° | DIRECT LOAD 120° | CHOKE HITCH ROUND LOAD SINGLE WRAP 0° - 45° | CHOKE HITCH ROUND LOAD DOUBLE WRAP 0° - 60° | CHOKE HITCH OTHER THAN ROUND LOAD SINGLE WRAP 0° - 45° | CHOKE HITCH OTHER THAN ROUND LOAD DOUBLE WRAP 0° - 60° | BASKET HITCH ROUND LOAD 0° | BASKET HITCH ROUND LOAD 60° | BASKET HITCH ROUND LOAD 90° | BASKET HITCH ROUND LOAD 120° | BASKET HITCH OTHER THAN ROUND LOAD 0° | BASKET HITCH OTHER THAN ROUND LOAD 60° | BASKET HITCH OTHER THAN ROUND LOAD 90° | BASKET HITCH OTHER THAN ROUND LOAD 120° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAXIMUM WORKING LOAD LIMITS IN TONNES OF 1000 KG FOR 1770 GRADE STEEL CORE - BLACK | | | | | | | | | | | | | | | | | | |
| 8 | 0.78 | 0.58 | 0.39 | 1.35 | 1.1 | 0.78 | 1.01 | 0.68 | 1.56 | 1.35 | 1.1 | 0.78 | 0.78 | 0.68 | 0.55 | 0.39 | | |
| 9 | 0.99 | 0.74 | 0.49 | 1.71 | 1.4 | 0.99 | 1.29 | 0.86 | 1.98 | 1.71 | 1.4 | 0.99 | 0.99 | 0.86 | 0.7 | 0.49 | | |
| 10 | 1.22 | 0.92 | 0.61 | 2.1 | 1.72 | 1.22 | 1.59 | 1.06 | 2.4 | 2.1 | 1.72 | 1.22 | 1.22 | 1.06 | 0.87 | 0.61 | | |
| 11 | 1.48 | 1.11 | 0.74 | 2.6 | 2.1 | 1.48 | 1.92 | 1.29 | 3 | 2.6 | 2.1 | 1.48 | 1.48 | 1.29 | 1.05 | 0.74 | | |
| 12 | 1.76 | 1.32 | 0.88 | 3 | 2.5 | 1.76 | 2.3 | 1.53 | 3.5 | 3 | 2.5 | 1.76 | 1.76 | 1.53 | 1.25 | 0.88 | | |
| 13 | 2.1 | 1.55 | 1.04 | 3.6 | 2.9 | 2.1 | 2.7 | 1.8 | 4.1 | 3.6 | 2.9 | 2.1 | 2.1 | 1.8 | 1.47 | 1.04 | | |
| 14 | 2.4 | 1.8 | 1.2 | 4.2 | 3.4 | 2.4 | 3.1 | 2.1 | 4.8 | 4.2 | 3.4 | 2.4 | 2.4 | 2.1 | 1.71 | 1.2 | | |
| 16 | 3.1 | 2.3 | 1.56 | 5.4 | 4.4 | 3.1 | 4.1 | 2.7 | 6.2 | 5.4 | 4.4 | 3.1 | 3.1 | 2.7 | 2.2 | 1.56 | | |
| 18 | 4 | 3 | 1.98 | 6.8 | 5.6 | 4 | 5.1 | 3.4 | 7.9 | 6.8 | 5.6 | 4 | 4 | 3.4 | 2.8 | 1.98 | | |
| 20 | 4.9 | 3.7 | 2.4 | 8.4 | 6.9 | 4.9 | 6.3 | 4.2 | 9.8 | 8.4 | 6.9 | 4.9 | 4.9 | 4.2 | 3.5 | 2.4 | | |
| 22 | 5.9 | 4.4 | 3 | 10.2 | 8.3 | 5.9 | 7.7 | 5.1 | 11.8 | 10.2 | 8.3 | 5.9 | 5.9 | 5.1 | 4.2 | 3 | | |
| 24 | 7 | 5.3 | 3.5 | 12.2 | 9.9 | 7 | 9.1 | 6.1 | 14.1 | 12.2 | 9.9 | 7 | 7 | 6.1 | 5 | 3.5 | | |
| 26 | 8.3 | 6.2 | 4.1 | 14.3 | 11.6 | 8.3 | 10.7 | 7.2 | 16.5 | 14.3 | 11.6 | 8.3 | 8.3 | 7.2 | 5.9 | 4.1 | | |
| 28 | 9.6 | 7.2 | 4.8 | 16.6 | 13.5 | 9.6 | 12.4 | 8.3 | 19.1 | 16.6 | 13.5 | 9.6 | 9.6 | 8.3 | 6.8 | 4.8 | | |
| 32 | 12.5 | 9.4 | 6.3 | 22 | 17.6 | 12.5 | 16.3 | 10.9 | 25 | 22 | 17.6 | 12.5 | 12.5 | 10.9 | 8.9 | 6.3 | | |
| 36 | 15.8 | 11.9 | 7.9 | 27 | 22 | 15.8 | 21 | 13.8 | 32 | 27 | 22 | 15.8 | 15.8 | 13.8 | 11.2 | 7.9 | | |
| 40 | 19.6 | 14.7 | 9.8 | 34 | 28 | 19.6 | 25 | 17 | 39 | 34 | 28 | 19.6 | 19.6 | 17 | 13.9 | 9.8 | | |
| 44 | 24 | 17.7 | 11.8 | 41 | 33 | 24 | 31 | 21 | 47 | 41 | 33 | 24 | 24 | 21 | 16.8 | 11.8 | | |
| 48 | 28 | 21 | 14 | 49 | 40 | 28 | 37 | 24 | 56 | 49 | 40 | 28 | 28 | 24 | 19.9 | 14 | | |
| 52 | 33 | 25 | 16.6 | 57 | 47 | 33 | 43 | 29 | 66 | 57 | 47 | 33 | 33 | 29 | 24 | 16.6 | | |
| 56 | 38 | 29 | 19.2 | 66 | 54 | 38 | 50 | 33 | 77 | 66 | 54 | 38 | 38 | 33 | 27 | 19.2 | | |
| 60 | 44 | 33 | 22 | 76 | 62 | 44 | 57 | 38 | 88 | 76 | 62 | 44 | 44 | 38 | 31 | 22 | | |

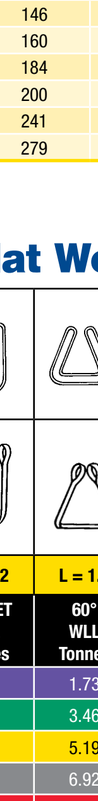
The above listed working loads represent ferrule - secured eyes.

## Beaver Quality Lifting Products

Comply to relevant Australian Standards where applicable



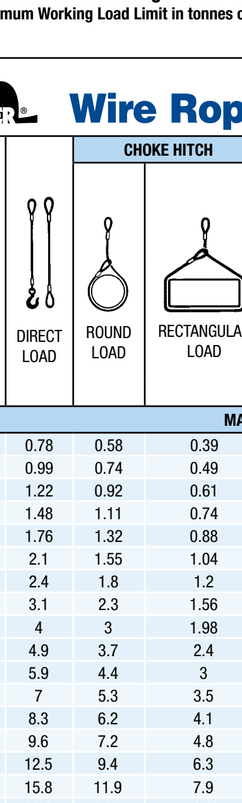



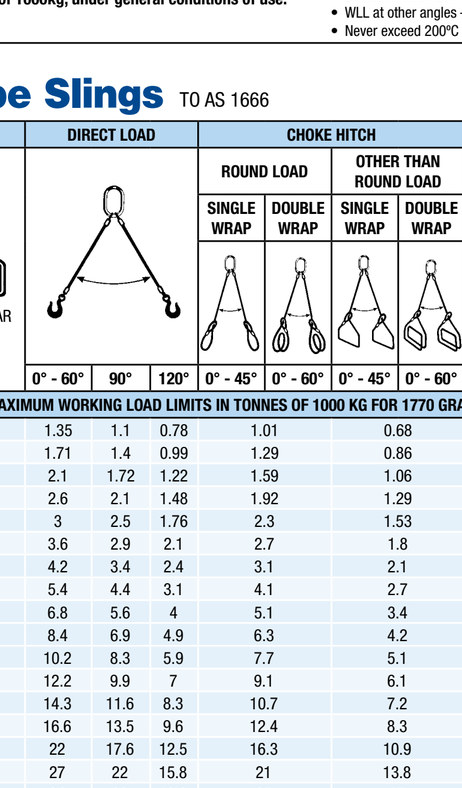



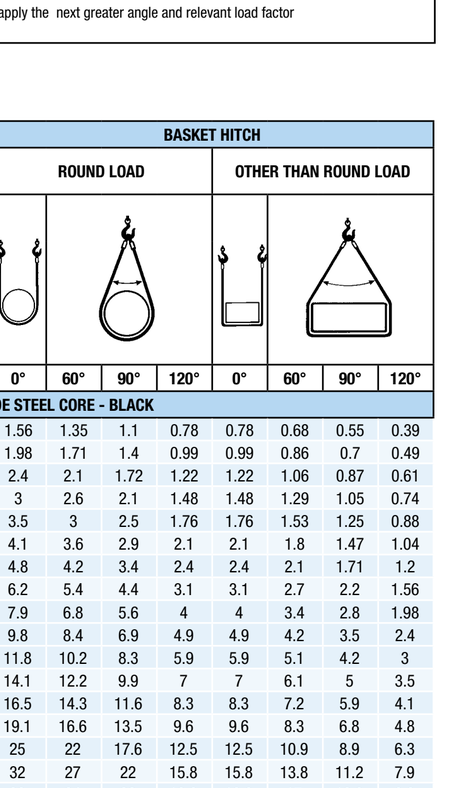

### Grade 80 Lifting Chain & Components




### Grade 50 Stainless Steel Lifting Chain & Components




NATA ACCREDITED FOR TECHNICAL COMPETENCE

BEAVER BRANDS