

# FULL TENSION CONNECTORS

- 6000 series aluminum alloy
- Fits cable sizes 1/0 - 3500 kcmil
- Single and Two-Stage applications

- Meets pull out requirement of over 95% strength of cable
- Pre-drilled inspection hole for proper cable insertion
- Custom dimensions and configurations available

## THINKING OUTSIDE THE FENCE

Every day a continuously increasing demand is placed on our nation's transmission conductors, often causing them to operate at temperatures exceeding 130°C. Keeping these transmission lines safely in the air is the single most critical requirement of any connector and traditional installation methods simply cannot survive long under this kind of burden. That's why DMC Power designed the next generation of Full Tension connectors for AAC, ACSR, ACSS and Static Wire applications.

DMC Power has spent several years testing to all industry standards including ANSI C119.4 Class "AA" current cycling on our Single Stage system, establishing us as the only "High Temperature" Single Stage system option.

Additional Thermal/Mechanical testing of our Single Stage "One Die" ACSR fittings at an elevated temperature of 150°C and 25% tension showed that all of our test samples ran an average of 25% cooler than the control conductor temperature, proving DMC Power's superior performance over all other compression systems.

DMC Power's strict manufacturing processes and ISO 9001:2008 quality system ensures that each and every connector you receive meets and exceeds all utility and industry standards. Trust the superior quality and proven reliability of the DMC Power Swage System on your next Transmission project.



*Only 4 Swages required on AAC Single Pad Deadends*



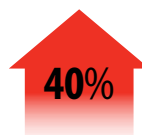
*360° compression with just the push of a button*

### FULL 360° COMPRESSION

Unlike other connection systems that use dangerous explosives, inferior connector material or fixed dies that produce inefficient compression, our Swage System provides 360° compression around the outside of the high strength 6000 series aluminum alloy fitting to produce:



AREA OF  
REDUCTION



HIGHER IACS  
RATING



HIGHER THERMAL  
CONDUCTIVITY  
RATING

# THE MOST NOVEL FULL TENSION TRANSMISSION APPLICATION IN 30 YEARS

- Internal step down for stress relief
- Flared out section provides a "choking" effect



- 360° flex die applies symmetrical forces for greater holding strength



- Flexible gripping core to prevent scraping out holding grit



- Yields a 20% area of reduction for superior electrical performance



## MANUFACTURING

- Machined to exact sizes (Tolerance:  $\pm .005$ )
- Cores are machined for maximum accuracy
- Exact surface finish allows maximum contact
- Optimum strength through precise heat treatment
- Special galvanizing and superior corrosion protection
- TIG welding for best connection and conductivity
- Gun Drill Machining produces 5x tighter tolerance vs. extrusion



## PERFORMANCE FEATURES

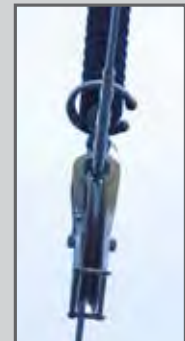
- Higher conductivity alloy
- Superior mechanical strength
- Step down stress relief
- Fewer compressions for fast installation
- Lighter tool for improved ergonomics
- No need to rotate the tool, no bowing
- Lower total ownership cost

## APPLICATION NOTES



### PULL DMC OVER THE ROLLERS

Transmission line construction specialists recognize the time and costs associated with temporary joints used to pull cables through the rollers. The need for access roads or helicopters to install permanent splices can add \$1,000,000 to your project for every 100 splices! DMC Power's Swage design allows for splices to run OVER the roller during installation without impacting splice performance -- just Swage your reels together and start stringing!



# COMPLETE LINE OF FULL TENSION

DMC Power offers a complete line of Full Tension connector configurations for any Transmission application. Identifying the proper base part number is easy - simply replace the "x" in the listed part number with the corresponding letter of the conductor type being used. See page 53 for complete part ordering information.



## CONDUCTOR CODES

**DB** = AAC      **DC** = ACSR      **DJ** = ACSS  
**DL** = ACSS TW Equal Area      **DN** = Static Wire  
**DQ** = ACSS TW Equal Diameter

### EXAMPLE

AAC (DB) Single Pad Deadend (Dx99) = DB99

## Dx99

### SINGLE PAD DEADEND



- Kit includes Bolt Package and Jumper Terminal
- 2-Stage Connector = Dx79



## Dx98

### DEADEND



- Includes Deadend only
- For use with Tees (Dx93) or Taps (Dx92)
- 2-Stage Connector = Dx78



## Dx97

### DUAL PAD DEADEND



- Kit includes two Bolt Packages and two Jumper Terminals
- 2-Stage Connector = Dx77



## Dx96

### SPLICE CONNECTOR



- Superior sheave performance
- Save installation time and money by going over the roller
- 2-Stage Connector = Dx76



## Dx89

### SINGLE PAD ADJUSTABLE DEADEND



- Kit includes Bolt Package and Jumper Terminal
- 2-Stage Connector = Dx69



## Dx88

### ADJUSTABLE DEADEND



- Includes Deadend only
- For use with Tees (Dx93) or Taps (Dx92)
- 2-Stage Connector = Dx68



## Dx87

### DUAL PAD ADJUSTABLE DEADEND



- Kit includes two Bolt Packages and two Jumper Terminals
- 2-Stage Connector = Dx67



## DN79

### SINGLE PAD STATIC WIRE DEADEND



- Kit includes Bolt Package and Jumper Terminal
- Static Wire Splice (DN76), Deadend (DN78) and Dual Pad Deadend (DN77) also available



## Dx92

### TAPS



- Split fitting design slides easily over existing cable
- Custom pad sizes and configurations available



## Dx93

### TEES



- Split fitting design slides easily over existing cable
- Any size cable and configuration available



## Dx94

### JUMPER TERMINALS

- Connects to Deadend NEMA pads to keep the current flowing
- Standard and custom angles available
- Jumper Terminal included with Deadend orders or available separately



## Dx95

### REPAIR SLEEVES

- Provides a lifelong Swage connection for weak points in cable runs
- Split fitting design slides easily over existing cable



## PLK8000

### EHV BOLT SHIELDS

- Bolts directly onto existing NEMA Pad to smooth out the electric field profile created by sharp edges
- Can be used at high altitude, coastal or industrial areas for added protection
- Included with all EHV Deadend orders



## DPFT8014

### MOUNTING HARDWARE

- Kit contains 4 Bolts, Washers and Nuts
- One standard kit included per Deadend and Jumper Terminal order





# AAC CABLE SELECTOR CHART

## ► Step 1: Select your base connector style

	DEADEND						JUMPER TERMINAL	
	1 PAD	NO PAD	2 PAD	ADJUSTABLE 1 PAD	ADJUSTABLE NO PAD	ADJUSTABLE 2 PAD	SINGLE TERMINAL	DOUBLE TERMINAL
AAC	DB99	DB98	DB97	DB89	DB88	DB87	DB94	DB84

	SPICES				TEES	TAPS
	STANDARD	REPAIR	LOOP	REDUCER		
AAC	DB96	DB95	DB91	DB90	DB93	DB92

## ► Steps 2 & 3: Find the AAC Conductor you're using and select the corresponding outer aluminum **BARREL DIE #** and **CABLE CODE #**

AAC	SIZE (kcmil)	STR	CABLE OD	BARREL DIE #	CABLE CODE #
Poppy	1/0	7	0.368	125	00
Aster	2/0	7	0.414	125	01
Phlox	3/0	7	0.464	125	02
Oxlip	4/0	7	0.522	125	03
Sneezewort	250	7	0.567	125	0A
Laurel	266.8	19	0.592	125	04
Tulip	336.4	19	0.665	125	05
Daffodil	350	19	0.679	125	05
Canna	397.5	19	0.723	125	05
Goldentuft	450	19	0.769	125	05
Cosmos	477	19	0.792	150	10
Syringa	477	37	0.795	150	10
Zinnia	500	19	0.811	150	10
Hyacinth	500	37	0.814	150	10
Dahlia	556.5	19	0.856	150	10
Mistletoe	556.5	37	0.858	150	10
Meadowsweet	600	37	0.891	150	10
Orchid	636	37	0.918	175	15
Heuchera	650	37	0.928	175	15
Verbena	700	37	0.963	175	20
Flag	700	61	0.964	175	20
Violet	715.5	37	0.973	175	20
Nasturtium	715.5	61	0.975	175	20
Petunia	750	37	0.997	175	20
Cattail	750	61	0.998	188	25
Arbutus	795	37	1.026	188	25
Lilac	795	61	1.027	188	25
Cockscomb	900	37	1.092	188	25
Snapdragon	900	61	1.093	200	30
Magnolia	954	37	1.124	200	30
Goldenrod	954	61	1.125	200	30
Hawkweed	1000	37	1.151	200	35
Camellia	1000	61	1.152	200	35
Bluebell	1033.5	37	1.17	200	40
Larkspur	1033.5	61	1.171	200	40

# AAC CABLE SELECTOR CHART

AAC	SIZE (kcmil)	STR	CABLE OD	BARREL DIE #	CABLE CODE #
Marigold	1113	61	1.216	225	45
Hawthorn	1192.5	61	1.258	225	45
Narcissus	1272	61	1.300	225	45
Columbine	1351.5	61	1.340	225	50
Carnation	1431	61	1.378	225	50
Gladiolus	1510.5	61	1.416	225	55
Coreopsis	1590	61	1.453	225	55
Jessamine	1750	61	1.524	225	58
Cowslip	2000	91	1.631	275	60
Sagebrush	2250	91	1.730	275	65
Pigweed	2300	91	1.748	275	65
Lupine	2500	91	1.823	275	70
Bluebonnet	3500	127	2.158	325	85



**HANG TRANSMISSION CABLE IN SECONDS WITH JUST 4 STEPS:**

## 1. INSERT



## 2. SWAGE



## 3. INSPECT



## 4. CONNECT



# ACSR CABLE SELECTOR CHART

## ► Step 1: Select your base connector style

	DEADEND						JUMPER TERMINAL	
	1 PAD	NO PAD	2 PAD	ADJUSTABLE 1 PAD	ADJUSTABLE NO PAD	ADJUSTABLE 2 PAD	SINGLE TERMINAL	DOUBLE TERMINAL
ACSR Single Stage	DC99	DC98	DC97	DC89	DC88	DC87	DC94	DC84
ACSR Two Stage	DC79	DC78	DC77	DC69	DC68	DC67		

	SPLICES				TEES	TAPS
	STANDARD	REPAIR	LOOP	REDUCER		
ACSR Single Stage	DC96	DC95	DC91	DC90	DC93	DC92
ACSR Two Stage	DC76			DC70		

## ► Step 2 & 3: Find the ACSR Conductor you're using and select the corresponding outer aluminum **BARREL DIE #** and Single or Two Stage **CABLE CODE #** (NOTE: Internal Die # required for 2-Stage installation but not used to build the part number)

				1 & 2-STAGE	CABLE CODE #		2-STAGE ONLY
ACSR	SIZE (kcmil)	STR (Al/St)	CABLE OD	BARREL DIE #	SINGLE STAGE	TWO STAGE	INTERNAL CORE DIE #
Raven	1/0	6/1	0.398	150	0F	0F	N/A
Quail	2/0	6/1	0.447	150	0E	0E	
Pigeon	3/0	6/1	0.502	150	0D	0D	
Penguin	4/0	6/1	0.563	150	01	01	
Waxwing	266.8	18/1	0.609	150	0F	0F	
Partridge	266.8	26/7	0.642	150	0C	0C	
Merlin	336.4	18/1	0.684	150	02	02	063
Linnet	336.4	26/7	0.720	150	04	04	
Chickadee	397.5	18/1	0.743	150	08	08	
Brant	397.5	24/7	0.772	150	10	09	
Ibis	397.5	26/7	0.783	150	10	10	075
Lark	397.5	30/7	0.806	150	12	12	
Pelican	477	18/1	0.814	150	14	14	
Flicker	477	24/7	0.846	150	16	15	
Hawk	477	26/7	0.858	150	16	16	
Hen	477	30/7	0.883	175	18	18	088
Osprey	556.5	18/1	0.879	175	20	20	075
Parakeet	556.5	24/7	0.914	175	22	21	
Dove	556.5	26/7	0.927	175	22	22	088
Eagle	556.5	30/7	0.953	175	24	24	
Peacock	605	24/7	0.953	175	26	25	
Squab	605	26/7	0.966	175	26	26	
Kingbird	636	18/1	0.940	175	30	30	075
Swift	636	36/1	0.930	175	32	32	

# ACSR CABLE SELECTOR CHART

				1 & 2-STAGE	CABLE CODE #		2-STAGE ONLY
ACSR	SIZE (kcmil)	STR (Al/St)	CABLE OD	BARREL DIE #	SINGLE STAGE	TWO STAGE	INTERNAL CORE DIE #
Rook	636	24/7	0.977	188	34	33	088
Grosbeak	636	26/7	0.991	188	34	34	
Scoter	636	30/7	1.019	188	36	36	100
Egret	636	30/19	1.019	188	36	36	
Flamingo	666.6	24/7	1.000	188	38	37	088
Gannet	666.6	26/7	1.014	188	38	38	
Stilt	715.5	24/7	1.036	188	38	37	
Starling	715.5	26/7	1.051	188	38	38	
Redwing	715.5	30/19	1.081	188	40	39	100
Drake	795	26/7	1.107	188	40	40	
Coot	795	36/1	1.040	188	42	42	088
Tern	795	45/7	1.063	188	44	44	100
Condor	795	54/7	1.092	188	46	46	
Ruddy	900	45/7	1.131	200	50	50	100
Rail	954	45/7	1.165	200	50	50	
Phoenix	954	42/6	1.162	200	51	51	
Canary	900	54/7	1.162	200	52	52	
Cardinal	954	54/7	1.196	200	52	52	
Ortolan	1033.5	45/7	1.212	200	54	54	
Curlew	1033.5	54/7	1.245	200	56	56	
Bluejay	1113	45/7	1.258	225	58	58	113
Finch	1113	54/19	1.292	225	60	60	
Bunting	1192.5	45/7	1.302	225	62	62	
Grackle	1192.5	54/19	1.337	225	64	64	
Bittern	1272	45/7	1.345	225	66	66	
Pheasant	1272	54/19	1.381	225	68	68	
Dipper	1351.5	45/7	1.386	225	70	70	
Martin	1351.5	54/19	1.424	225	72	72	
Bobolink	1431	45/7	1.427	225	74	74	
Lapwing	1590	45/7	1.504	225	76	N/A	N/A
Lapwing	1590	45/7	1.504	275	N/A	76	125
Falcon	1590	54/19	1.544	275	78	78	
Chukar	1780	84/19	1.602	275	80	80	
Bluebird	2156	84/19	1.762	275	82	82	
Kiwi	2167	72/7	1.735	275	84	84	



# ACSS CABLE SELECTOR CHART

## ► Step 1: Select your base connector style

	DEADEND						JUMPER TERMINAL	
	1 PAD	NO PAD	2 PAD	ADJUSTABLE 1 PAD	ADJUSTABLE NO PAD	ADJUSTABLE 2 PAD	SINGLE TERMINAL	DOUBLE TERMINAL
ACSS	DJ79	DJ78	DJ77	DJ69	DJ68	DJ67	DJ94	DJ84

	SPLICES				TEES	TAPS
	STANDARD	REPAIR	LOOP	REDUCER		
ACSS	DJ76	DJ95	DJ91	DJ70	DJ93	DJ92

## ► Step 2 & 3: Find the ACSS Conductor you're using and select the corresponding outer aluminum **BARREL DIE #** and **CABLE CODE #** (NOTE: Internal Die # required for 2-Stage installation but not used to build the part number)

ACSS	SIZE (kcmil)	STR (Al/St)	CABLE OD	BARREL DIE #	CABLE CODE #	INTERNAL CORE DIE #
Partridge/ACSS	266.8	26/7	0.642	150	0C	063
Ostrich/ACSS	300	26/7	0.680	150	0F	
Linnet/ACSS	336.4	26/7	0.720	150	04	
Brant/ACSS	397.5	24/7	0.772	150	09	075
Ibis/ACSS	397.5	26/7	0.783	150	10	
Flicker/ACSS	477	24/7	0.846	150	15	
Hawk/ACSS	477	26/7	0.858	150	16	
Hen/ACSS	477	30/7	0.883	175	18	088
Dove/ACSS	556.5	26/7	0.927	175	22	
Peacock/ACSS	605	24/7	0.953	175	25	
Squab/ACSS	605	26/7	0.966	175	26	
Rook/ACSS	636	24/7	0.977	188	33	088
Grosbeak/ACSS	636	26/7	0.991	188	34	100
Scoter/ACSS	636	30/7	1.019	188	36	
Egret/ACSS	636	30/19	1.019	188	36	088
Flamingo/ACSS	666.6	24/7	1.000	188	37	
Gannet/ACSS	666.6	26/7	1.014	188	38	100
Stilt/ACSS	715.5	24/7	1.036	188	37	
Starling/ACSS	715.5	26/7	1.051	188	38	



## THERMAL MECHANICAL ACSS TESTING

Our ACSS line of high temperature Deadends and Splices have been independently tested to the rigorous international standards of CIGRE TB 426. Accordingly, samples were subjected to 500 current cycles at 250°C with 25% RBS constant tension including 5 separate sustained holds at 70% RBS for 24 hours. All DMC Power connectors passed easily with the post-aging tensioned conductor breaking at a remarkable 103% RBS.



# ACSS CABLE SELECTOR CHART

ACSS	SIZE (kcmil)	STR (Al/St)	CABLE OD	BARREL DIE #	CABLE CODE #	INTERNAL CORE DIE #
Cuckoo/ACSS	795	24/7	1.092	200	4A	100
Drake/ACSS	795	26/7	1.107	200	40	
Macaw/ACSS	795	42/7	1.055	200	41	
Tern/ACSS	795	45/7	1.063	200	44	
Condor/ACSS	795	54/7	1.092	200	46	
Ruddy/ACSS	900	45/7	1.131	200	50	
Canary/ACSS	900	54/7	1.162	200	52	
Redbird/ACSS	954	24/7	1.196	200	5A	
Rail/ACSS	954	45/7	1.165	200	50	
Towhee/ACSS	954	48/7	1.175	200	5B	
Cardinal/ACSS	954	54/7	1.196	200	52	
Snowbird/ACSS	1033.5	42/7	1.203	200	5D	
Ortolan/ACSS	1033.5	45/7	1.212	200	54	
Curlew/ACSS	1033.5	54/7	1.245	225	56	113
Bluejay/ACSS	1113	45/7	1.258	225	58	
Finch/ACSS	1113	54/19	1.292	225	60	
Bunting/ACSS	1192.5	45/7	1.302	225	62	
Pheasant/ACSS	1272	54/19	1.381	225	68	
Dipper/ACSS	1351.5	45/7	1.386	225	70	
Martin/ACSS	1351.5	54/19	1.424	275	72	125
Bobolink/ACSS	1431	45/7	1.427	275	74	
Plover/ACSS	1431	54/19	1.465	275	7A	
Nuthatch/ACSS	1510	45/7	1.465	275	74	
Parrot/ACSS	1510	54/19	1.505	275	7B	
Ratite/ACSS	1590	42/7	1.492	275	7C	
Lapwing/ACSS	1590	45/7	1.504	275	76	
Falcon/ACSS	1590	54/19	1.544	275	78	
Chukar/ACSS	1780	84/19	1.601	275	80	
Mockingbird/ACSS	2034.5	72/7	1.681	275	81	
Roadrunner/ACSS	2057	76/19	1.700	275	8A	
Bluebird/ACSS	2156	84/19	1.762	275	82	
Kiwi/ACSS	2167	72/7	1.735	275	84	



## RUN COOLER, LONGER

During ANSI C119.4 type testing, DMC Power ACSS Deadends and Splices showed superior resistance stability on all samples through 500 thermal cycles at 250°C-285°C above room temperature. Additional extreme temperature cycling to 325°C was performed for 280 more cycles with all samples averaging 50% cooler than the control and the post-aging tensile load yielding 104% RBS.



# ACSS TW CABLE CHART

- ACSS/TW Equal Area size chart is listed below
- ACSS/TW Equal Diameter and Static Wire are on the following page

► **Step 1:** Select your base connector style

	DEADEND						JUMPER TERMINAL	
	1 PAD	NO PAD	2 PAD	ADJUSTABLE 1 PAD	ADJUSTABLE NO PAD	ADJUSTABLE 2 PAD	SINGLE TERMINAL	DOUBLE TERMINAL
ACSS TW - EA	DL79	DL78	DL77	DL69	DL68	DL67	DL94	DL84
ACSS TW - ED	DQ79	DQ78	DQ77	DQ69	DQ68	DQ67	DQ94	DQ84

	SPLICES				TEES	TAPS
	STANDARD	REPAIR	LOOP	REDUCER		
ACSS TW - EA	DL76	DL95	DL91	DL70	DL93	DL92
ACSS TW - ED	DQ76	DQ95	DQ91	DQ70	DQ93	DQ92

- **Step 2 & 3:** Find the ACSS TW Conductor you're using and select the corresponding outer aluminum **BARREL DIE #** and **CABLE CODE #**  
 (NOTE: Internal Die # required for 2-Stage installation but not used to build the part number)

EQUAL AREA							
ACSS/TW	SIZE (kcmil)	TYPE NO.	STR (Al/St)	CABLE OD	BARREL DIE #	CABLE CODE #	INTERNAL CORE DIE #
Linnet/ACSS/TW	336.4	16	16/7	0.667	150	04	063
Flicker/ACSS/TW	477	13	18/7	0.776	150	15	075
Hawk/ACSS/TW	477	16	18/7	0.798	150	16	
Hen/ACSS/TW	477	23	20/7	0.820	175	18	088
Dove/ACSS/TW	556.5	16	20/7	0.850	175	22	
Rook/ACSS/TW	636	13	20/7	0.893	188	33	088
Grosbeak/ACSS/TW	636	16	20/7	0.909	188	34	
Tern/ACSS/TW	795	7	17/7	0.960	200	44	088
Condor/ACSS/TW	795	13	20/7	0.993	200	46	
Drake/ACSS/TW	795	16	20/7	1.010	200	40	100
Canary/ACSS/TW	900	13	20/7	1.055	200	52	
Rail/ACSS/TW	954	7	32/7	1.061	200	50	
Cardinal/ACSS/TW	954	13	20/7	1.080	200	52	
Ortolan/ACSS/TW	1033.5	7	32/7	1.102	200	54	
Curlew/ACSS/TW	1033.5	13	22/7	1.132	225	56	113
Bluejay/ACSS/TW	1113	7	33/7	1.143	225	58	
Bunting/ACSS/TW	1192.5	7	34/7	1.181	225	62	
Bittern/ACSS/TW	1272	7	38/7	1.224	225	67	
Pheasant/ACSS/TW	1272	13	39/19	1.260	225	68	
Dipper/ACSS/TW	1351.5	7	35/7	1.256	225	70	
Lapwing/ACSS/TW	1590	7	36/7	1.358	275	76	125
Falcon/ACSS/TW	1590	13	42/19	1.410	275	78	
Chukar/ACSS/TW	1780	8	38/19	1.445	275	80	
Bluebird/ACSS/TW	2156	8	64/19	1.608	275	82	

# ACSS TW CABLE CHART

EQUAL DIAMETER							
ACSS/TW	SIZE (kcmil)	TYPE NO.	STR (Al/St)	CABLE OD	BARREL DIE #	CABLE CODE #	INTERNAL CORE DIE #
Mohawk/ACSS/TW	571.7	13	18/7	0.850	150	03	075
Calumet/ACSS/TW	565.3	16	20/7	0.860	175	06	088
Oswego/ACSS/TW	664.8	16	20/7	0.927	188	12	088
Wabash/ACSS/TW	762.8	16	20/7	0.990	188	18	100
Fraser/ACSS/TW	946.7	10	35/7	1.077	188	24	
Columbia/ACSS/TW	966.2	13	21/7	1.092	188	27	
Suwannee/ACSS/TW	959.6	16	22/7	1.110	200	30	113
Genesee/ACSS/TW	1158	7	34/7	1.165	200	36	100
Catawba/ACSS/TW	1272	5	30/7	1.203	225	42	113
Nelson/ACSS/TW	1257.1	7	35/7	1.213	225	45	
Truckee/ACSS/TW	1372.5	5	30/7	1.248	225	51	
St. Croix/ACSS/TW	1467.8	5	33/7	1.292	225	60	
Thames/ACSS/TW	1334.6	13	38/19	1.290	275	57	113
Potomac/ACSS/TW	1557.4	7	36/7	1.350	275	72	125
Schuylkill/ACSS/TW	1657.4	7	36/7	1.386	275	78	
Pecos/ACSS/TW	1622	13	39/19	1.420	275	81	
James/ACSS/TW	1730.6	13	34/19	1.470	275	87	
Athabaska/ACSS/TW	1949.6	7	44/7	1.504	275	90	
Powder/ACSS/TW	2153.8	8	64/19	1.602	275	96	

## STATIC WIRE CABLE CHART

Below are some of the most popular Static Wire cable sizes.  
All sizes and configurations are possible, contact us for more information.

DN - STATIC WIRE	SIZE / STRANDING	CABLE OD	BREAKING STRENGTH	BARREL DIE #	CABLE CODE #
Galvanized - EHS	5/16"	0.306	11,200	075	28
Alumaweld	7 No. 10	0.306	10,020	075	28
Alumaweld	7 No. 9	0.343	12,630	075	30
Alumaweld	3 No. 6	0.349	10,280	075	30
Galvanized - EHS	3/8"	0.385	15,400	100	34
Alumaweld	7 No. 8	0.385	15,930	100	34
Alumaweld	3 No. 5	0.392	12,230	100	34
Alumaweld	7 No. 7	0.433	19,060	100	36
Galvanized - EHS	1/2"	0.486	26,900	113	38
Alumaweld	7 No. 6	0.486	22,730	113	38
Alumaweld	19 No. 10	0.509	27,190	113	38
Alumaweld	7 No. 5	0.546	27,030	125	40
Alumaweld	19 No. 9	0.572	34,290	125	42



# TRANSMISSION TOOLING CHART

- Use the color-coded **BARREL DIE #** associated with your cable type to determine the proper **Head Assembly and Power Unit** combination needed for your job  
(this is also the second set of digits in the connector part number: DC98-188-34)
- **ACSS & ACSR 2-Stage** installations will need to reference the **INTERNAL CORE DIE #** to select tooling for the internal steel sleeve

CABLE TYPE	BARREL DIE #	FITTING O.D.	HEAD ASSEMBLY	INSPECTION GAUGE	POWER UNIT
AAC	125	1-1/4"	DP45HA125 (DLT45CLHA03975)	DP45IG125 (DLT45CLIG03975)	DP45PU00 (DLT45MAPW0000)
AAC / ACSR	150	1-1/2"	DP45HA150 (DLT45CLHA05565)	DP45IG150 (DLT45CLIG05565)	
	175	1-3/4"	DP45HA175 (DLT45CLHA07155)	DP45IG175 (DLT45CLIG07155)	
	188	1-7/8"	DP45HA188 (DLT45CLHA08745)	DP45IG188 (DLT45CLIG08745)	
AAC	200	2"	DP45HA200 (DLT45CLHA11130)	DP45IG200 (DLT45CLIG11130)	
	225	2-1/4"	DP45HA225 (DLT45CLHA15900)	DP45IG225 (DLT45CLIG15900)	
ACSR	200	2"	DP58HA200 (DLT58CLHA11130)	DP45IG200 (DLT45CLIG11130)	DP58PU00 (DLT58MAPW0000)
AAC	275	2-3/4"	DP58HA275 (DLT58CLHA25000)	DP58IG275 (DLT58CLIG25000)	
ACSS/ ACSR 2-Stage Internal Core Die #	063	5/8"	DP85HA063	DP45IG063	DP85PU00 (DLT85MAPW0001)
	075	3/4"	DP85HA075 (DLT85CLHA00010)	DP45IG075 (DLT45CLIG00010)	
	088	7/8"	DP85HA088	DP45IG088	
	100	1"	DP85HA100 (DLT85CLHA02500)	DP45IG100 (DLT45CLIG02500)	
	113	1-1/8"	DP85HA113	DP45IG113	
	125	1-1/4"	DP85HA125 (DLT85CLHA03975)	DP45IG125 (DLT45CLIG03975)	
ACSS/ ACSR 2-Stage Outer Barrel	150	1-1/2"	DP85HA150 (DLT85CLHA05565)	DP45IG150 (DLT45CLIG05565)	
	175	1-3/4"	DP85HA175 (DLT85CLHA07155)	DP45IG175 (DLT45CLIG07155)	
	188	1-7/8"	DP85HA188 (DLT85CLHA08745)	DP45IG188 (DLT45CLIG08745)	
	200	2"	DP85HA200 (DLT85CLHA11130)	DP45IG200 (DLT45CLIG11130)	
ACSS/ ACSR Single & 2-Stage Outer Barrel	225	2-1/4"	DP85HA225 (DLT85CLHA15900)	DP45IG225 (DLT45CLIG15900)	
	275	2-3/4"	DP85HA275 (DLT85CLHA25000)	DP58IG275 (DLT58CLIG25000)	

PUMP TYPE (See page 9)	ELECTRIC - DP45EP00 (DLT12MAPE1000)	GAS - DP45GP00 (DLT17MAPE1001)
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# FULL TENSION ORDERING NOMENCLATURE

Creating your Full Tension Connectors is easy as 1 – 2 – 3 – 4

- **Step 1:** Select your base connector style (ex: DB97 – AAC Dual Pad Deadend)
- **Step 2 & 3:** Find the specific conductor you're using and take note of the **BARREL DIE #** and the **CABLE CODE #** (ex: AAC Magnolia – **BARREL DIE # 200**; **CABLE CODE # 30**)
- **Step 4:** Add any additional part modifiers (multiple suffixes can be applied)

OTHER OPTIONS	
No Terminal	NT
Horizontal Eyeloop	H
EHV	EHV
Bolt Package	BK
2 Conductor Spacing	XS

PAD OPTIONS	
2", 2H Pad	E1
3", 4H Pad	E2
4", 4H Pad	E3
5", 6H Pad	E4
6", 6H Pad	E5

TOTAL ANGLE	
DEADEND TO JUMPER MEASURED FROM VERTICAL	
00°	00
15°	15
45°	45
Custom Angle	Enter Angle

Using the three numbers from steps 1, 2 & 3 (and any optional part modifiers) simply link the numbers together with a "-" between them to create your custom Full Tension Connector

DBXX – XXX – XX – X

- Step 1: Insert Base Connector Style
- Step 2: Insert 3-Digit **BARREL DIE #**
- Step 3: Insert 2-Digit **CABLE CODE #**
- Step 4: Add any additional Part Modifiers  
(NOTE: Multiple suffixes may be added after the CABLE CODE as needed)

## SINGLE STAGE ORDERING EXAMPLE WITH MODIFIER:

*Magnolia AAC Cable / 954 kcmil*

DB97 – 200 – 30 – EHV

↑                      ↑                      ↑                      ↑

AAC Dual      2" OD      30 Cable      EHV  
Pad Deadend    Barrel      Code      Version

**Tooling:** Single Stage - 200 AAC Outer Barrel Size = DP45PU00 Power Unit & DP45HA200 Head Assembly

## TWO STAGE ORDERING EXAMPLE WITH MULTIPLE MODIFIERS:

*Drake ACSR Cable / 795 kcmil*

DC99 – 188 – 40 – H – 15

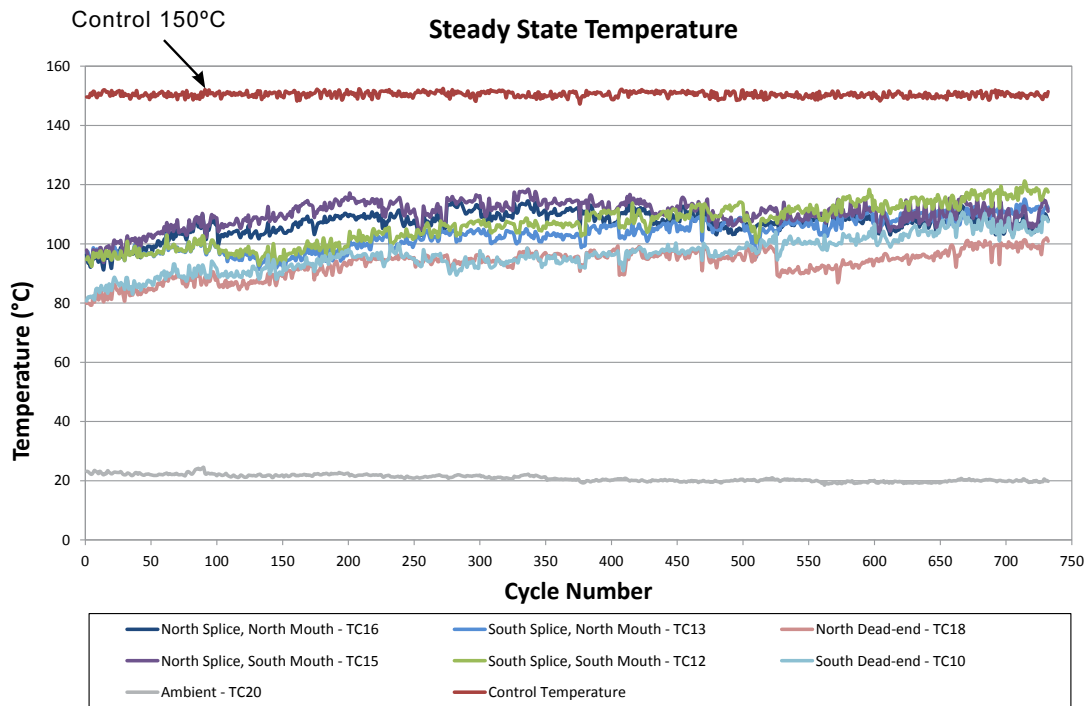
↑                      ↑                      ↑                      ↑                      ↑

ACSR Single    1-7/8" OD    40 Cable    Horizontal    0° Pad  
Pad Deadend    Barrel      Code      Eyeloop      From Vertical

**Tooling:** Two Stage - 188 ACSR Outer Barrel Size = DP85PU00 Power Unit & DP85HA188 Head Assembly  
Internal Core Die #100 ACSR = DP85PU00 Power Unit & DP85HA100 Head Assembly

# TESTED & CERTIFIED FULL

DMC Power's High Temperature Single Stage (one die) system has been proven to meet even the most aggressive maximum operating temperature of ACSR conductors. Thermal Mechanical testing at the elevated temperature of 150°C and under 25% tension shows excellent stability after 500 cycles with sample connector temperatures running 25% cooler than the control conductor. This allows for NERC facility rating compliance for normal and emergency operations.



**SUPERIOR  
DESIGN**

## EXTENSIVE TESTING ASSURES PEAK



**CURRENT CYCLE**



**RIV/CORONA**



**FREEZE/THAW**

# TENSION CONNECTORS

Kinectrics Lab independently type tested DMC Power's swaged connectors on various sizes of ACSR & ACSS conductors. All test connectors, as tested, met the acceptance criteria of their specific governing standard. They are as follows:

- Class A, Current Cycle Test (500 cycles) as per ANSI C119.4 on swaged connectors connected to ACSR Bluebird conductor.
- Class AA, Current Cycle Test (500 cycles) as per ANSI C119.4 on swaged connectors connected to ACSR Bluebird conductor. Selected connectors were exposed to a total of 1000 current cycles.
- Mechanical Maximum Load Tests as per ANSI C119.4 on swaged connectors connected to ACSR Linnet, Drake and Bluebird conductors.
- Mechanical Sustained Load Tests as per ANSI C119.4 on swaged connectors connected to ACSR Linnet, Drake and Bluebird conductors.
- Sheave and Pullout Test sequence as per Kinectrics procedure on a swaged connector installed on ACSR Drake conductor.
- Corona and RIV Tests on swaged transmission connectors were conducted per NEMA CC1 up to 765 kV with added corona-control devices as outlined in report DMCP-0120EHV
- Sheave and Pullout Test sequence as per Kinectrics procedure on a swaged connector connected to ACSS Drake conductor.
- Class AA, Current Cycle Test (500 cycles) as per ANSI C119.4 on swaged connectors connected to ACSS Falcon conductor.
- Thermo-Mechanical Cycle Test as per Kinectrics procedure on swaged connectors connected to ACSS Drake conductor.

The mechanical and current cycling tests were performed on ACSR conductors January 16th, 2012 through January 14th, 2013 & ACSS conductors on April 24, 2014 through November 19, 2014.

Results are recorded in Kinectrics Test Reports Number K-419340-RC-0001 through K-419340-RC-0008 and K-419515-RC-0003, K-419515-RC-0004 and K-419515-RC-0008.



## PERFORMANCE IN ALL ENVIRONMENTS



SUSTAINED LOAD



MAXIMUM LOAD



SALT FOG