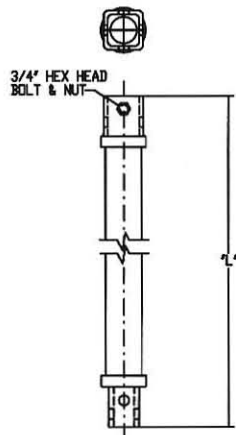


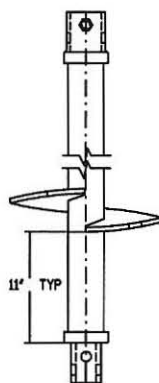
MacLean DixieHFS™ 2-7/8" P28 PIPE PILES AND EXTENSIONS

TORQUE STRENGTH RATING OF 8,000 FT-LB
 ULTIMATE CAPACITY - 60 KIPS WITH A
 TORQUE FACTOR (K_t) = 8
 SINGLE 12" HELIX ULTIMATE STRENGTH - 40 KIPS; 3/8" THICK
 ULTIMATE TENSION STRENGTH - 60 KIPS

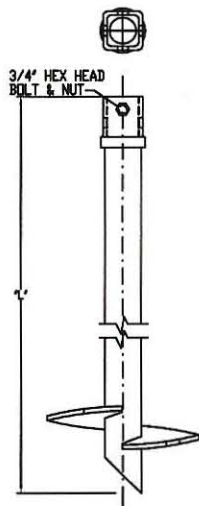
FOR CATALOG NUMERING SYSTEM SEE DRAWING NO. P3500



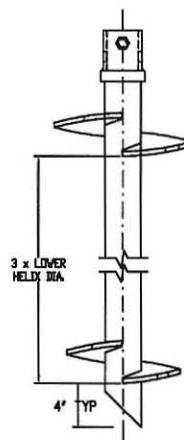
PIPE PILE
EXTENSION
EX. P28E84U



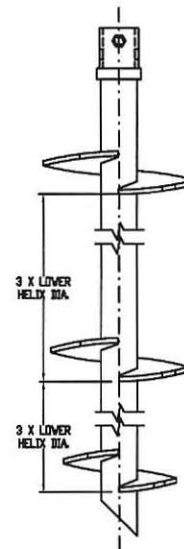
SINGLE PIPE PILE
EXTENSION
EX. P28E84S14U



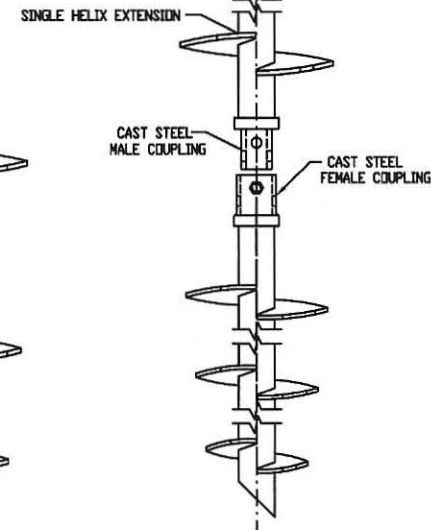
SINGLE HELIX
ANCHOR
EX. P28S84S14U



TWO HELIX
ANCHOR
EX. P28S84S1012U



THREE HELIX
ANCHOR
EX. P28S84S101214U

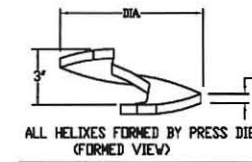


TYPICAL PIPE PILE
ASSEMBLY
EX. P28S081012U LEAD
AND EXTENSIONS

NOTES:

1. FINISH - BLACK. FOR HOT DIP GALV. PER ASTM A153, REMOVE THE SUFFIX "U" AFTER CAT. NO.
2. PIPE MATERIAL - 2 1/2" SCHEDULE 40 (2.875" O.D. X 0.203" WALL) PER ASTM A500 OR EQUAL WITH MINIMUM 50KSI YIELD STRENGTH.
3. SQUARE COUPLING - CAST STEEL PER AISI 8620 OR SC1045 GRADE 40/80 WITH 40KSI MIN. YIELD STRENGTH AND 80KSI ULT. STRENGTH.
4. HELIX MATERIAL - HOT ROLLED LOW CARBON STEEL SHEET, STRIP, OR PLATE PER ASTM A1011/1018 HSLA55, WITH 55 KSI MIN. YIELD STRENGTH FOR 3/8" THICK MATERIAL.
5. COUPLING BOLTS: 3/4" DIAMETER X 3" LONG HEX HEAD PER ASTM A325 AND 3/4" HEX JAM NUTS PER ASTM A563.
6. NOMINAL SPACING BETWEEN HELICAL PLATES IS 3X THE LOWER DIA.

6. ALL WELDING TO BE DONE BY WELDERS CERTIFIED UNDER SECTION 5 OF THE AWS CODE D1.1.
7. SEE TEST REPORT FOR ALLOWABLE AXIAL AND LATERAL LOAD PER ICC-ES ACCEPTANCE CRITERIA, AC358 BY CTL/THOMSON, AN ACRREDITED IAS 17025 TESTING LABORATORY.
8. ALL MATERIAL IS MANUFACTURED AS PER ICC-ES, AC10 ACCEPTANCE CRITERIA FOR QUALITY CONTROL DOCUMENTS



ALL HELICES FORMED BY PRESS DIE
(FORMED VIEW)

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11411 ADDISON STREET

FRANKLIN PARK, IL 60131-1130

**DIXIE HFS™ 2-7/8" P28 PIPE PILES
& EXTENSION**

DATE: 01/05/08 SCALE: FULL

NO. P3507

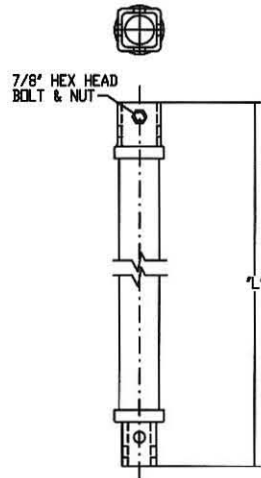
DWN. BY: MW CKD. BY: APR. BY:

R / 0 SH. 1 OF 1

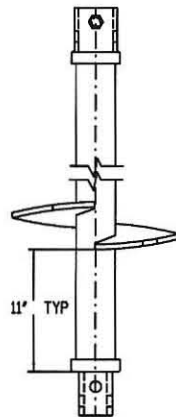
MacLean DixieHFS™ 3-1/2" P35 PIPE PILES AND EXTENSIONS

TORQUE STRENGTH RATING OF 12,000 FT-LB
 ULTIMATE CAPACITY - 80 KIPS WITH A
 TORQUE FACTOR (K_t) = 7
 SINGLE 12' HELIX ULTIMATE STRENGTH - 50 KIPS; 3/8" THICK
 ULTIMATE TENSION STRENGTH - 80 KIPS

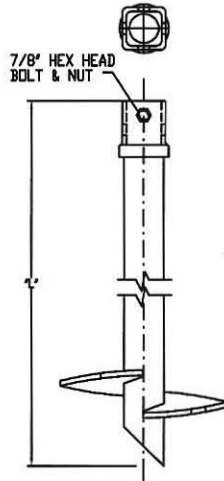
FOR CATALOG NUMERING SYSTEM SEE DRAWING NO. P3500



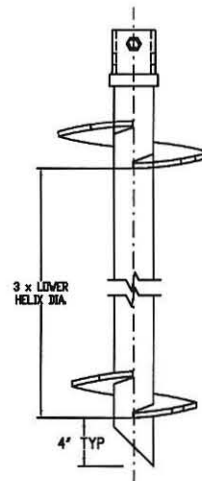
PIPE PILE
EXTENSION
EX. P35E84U



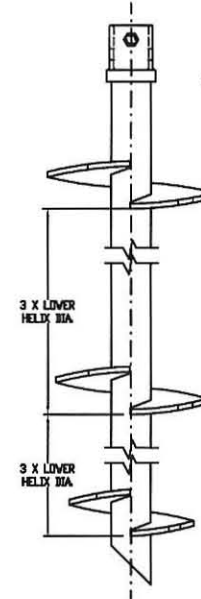
SINGLE PIPE PILE
EXTENSION
EX. P35E84S14U



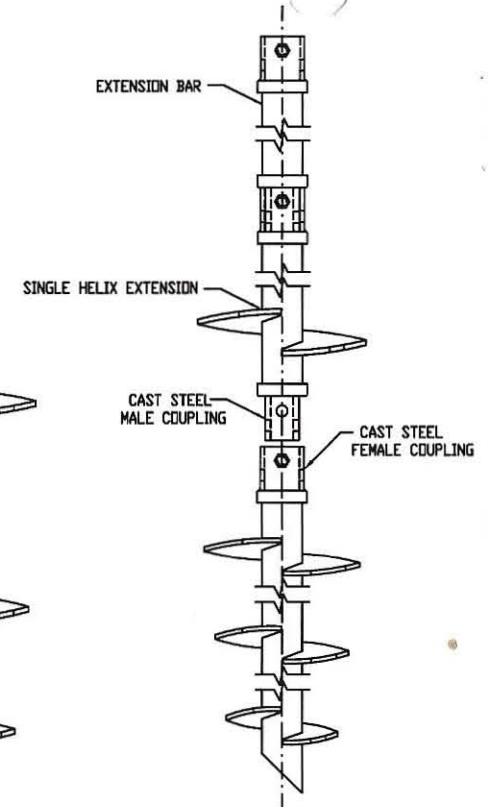
SINGLE HELIX
ANCHOR
EX. P35S84S14U



TWO HELIX
ANCHOR
EX. P35S84S1012U



THREE HELIX
ANCHOR
EX. P35S84S101214U

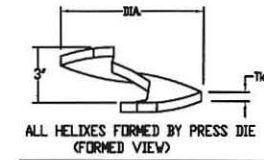


TYPICAL PIPE PILE
ASSEMBLY
EX. P35S081012U LEAD
AND EXTENSIONS

NOTES:

1. FINISH - BLACK. FOR HOT DIP GALV. PER ASTM A153, REMOVE THE SUFFIX "U" AFTER CAT. NO.
2. PIPE MATERIAL - 3" SCHEDULE 40 (3.500" O.D. X 0.216" WALL) PER ASTM A500 OR EQUAL WITH MINIMUM 50KSI YIELD STRENGTH.
3. SQUARE COUPLING - CAST STEEL PER AISI 8620 OR SC1045 GRADE 40/80 WITH 40KSI MIN. YIELD STRENGTH AND 80KSI ULT. STRENGTH.
4. HELIX MATERIAL - HOT ROLLED LOW CARBON STEEL SHEET, STRIP, OR PLATE PER ASTM A1011/1018 HSLA55, WITH 55 KSI MIN. YIELD STRENGTH FOR 3/8" THICK MATERIAL.
5. COUPLING BOLTS: 7/8" DIAMETER X 4-1/2" LONG HEX HEAD PER ASTM A325 AND 7/8" HEX JAM NUTS PER ASTM A563.
6. NOMINAL SPACING BETWEEN HELICAL PLATES IS 3X THE LOWER DIA.

6. ALL WELDING TO BE DONE BY WELDERS CERTIFIED UNDER SECTION 5 OF THE AWS CODE D11.
7. SEE TEST REPORT FOR ALLOWABLE AXIAL AND LATERAL LOAD PER ICC-ES ACCEPTANCE CRITERIA, AC358 BY CTL/THOMSON, AN ACCREDITED IAS 17025 TESTING LABORATORY.
8. ALL MATERIAL IS MANUFACTURED AS PER ICC-ES, AC10 ACCEPTANCE CRITERIA FOR QUALITY CONTROL DOCUMENTS



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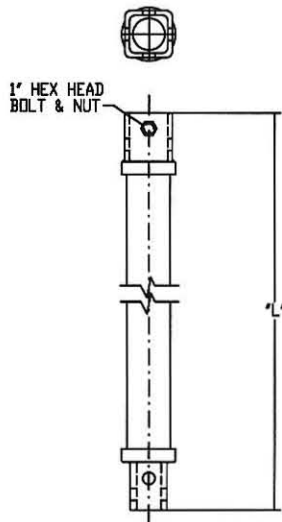
**DIXIE HFS™ 3-1/2" P35 PIPE PILES
 & EXTENSION**

DATE: 01/09/09	SCALE: FULL	NO. P3508	R/0	SH. 1
DWN. BY: MW	CHK. BY:	APR. BY:		OF 1

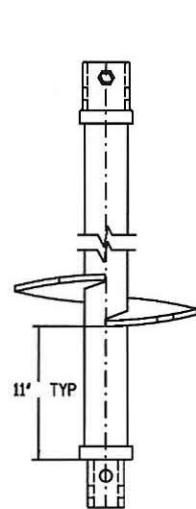
MacLean DixieHFS™ 4-1/2" P45 PIPE PILES AND EXTENSIONS

TORQUE STRENGTH RATING OF 18,000 FT-LB
 ULTIMATE CAPACITY - 100 KIPS WITH A
 TORQUE FACTOR (K_t) = 6
 SINGLE 12" HELIX ULTIMATE STRENGTH - 70 KIPS; 1/2" THICK
 ULTIMATE TENSION STRENGTH - 100 KIPS

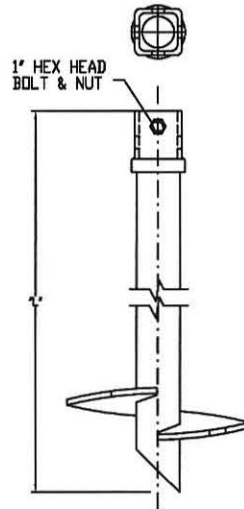
FOR CATALOG NUMERING SYSTEM SEE DRAWING NO. P3500



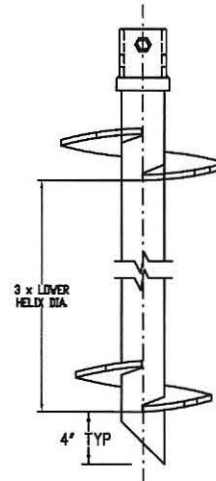
PIPE PILE
EXTENSION
EX. P45E84U



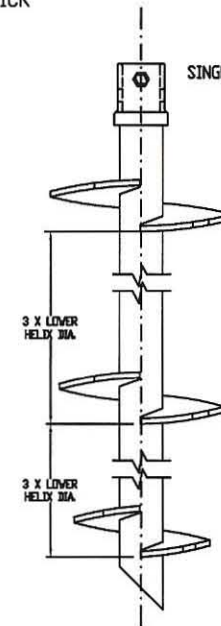
SINGLE PIPE PILE
EXTENSION
EX. P45E84S14U



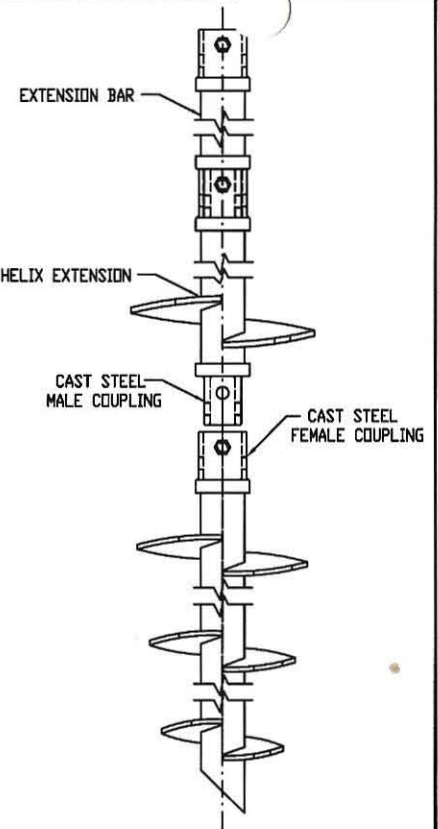
SINGLE HELIX
ANCHOR
EX. P45S84S14U



TWO HELIX
ANCHOR
EX. P45S84S1012U



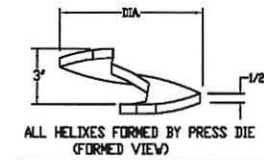
THREE HELIX
ANCHOR
EX. P45S84S101214U



TYPICAL PIPE PILE
ASSEMBLY
EX. P45S081012U LEAD
AND EXTENSIONS

NOTES:


1. FINISH - BLACK. FOR HOT DIP GALV. PER ASTM A153, REMOVE THE SUFFIX "U" AFTER CAT. NO.
2. PIPE MATERIAL - 4" SCHEDULE 40 (4.500" O.D. X 0.237" WALL) PER ASTM A500 OR EQUAL WITH MINIMUM 50KSI YIELD STRENGTH.
3. SQUARE COUPLING - CAST STEEL PER AISI 8620 OR SC1045 GRADE 40/80 WITH 40KSI MIN. YIELD STRENGTH AND 80KSI ULT. STRENGTH.
4. HELIX MATERIAL - HOT ROLLED LOW CARBON STEEL SHEET, STRIP, OR PLATE PER ASTM A1011/1018 HSLA55, WITH 55 KSI MIN. YIELD STRENGTH FOR 1/2" THICK MATERIAL.
5. COUPLING BOLTS: 1" DIAMETER X 5" LONG HEX HEAD PER ASTM A325 AND 1" HEX JAM NUTS PER ASTM A563.
6. NOMINAL SPACING BETWEEN HELICAL PLATES IS 3X THE LOWER DIA.
6. ALL WELDING TO BE DONE BY WELDERS CERTIFIED UNDER SECTION 5 OF THE AWS CODE D1.1.
7. ALL MATERIAL IS MANUFACTURED AS PER ICC-ES, AC10 ACCEPTANCE CRITERIA FOR QUALITY CONTROL DOCUMENTS



ALL HELICES FORMED BY PRESS DIE (FORMED VIEW)

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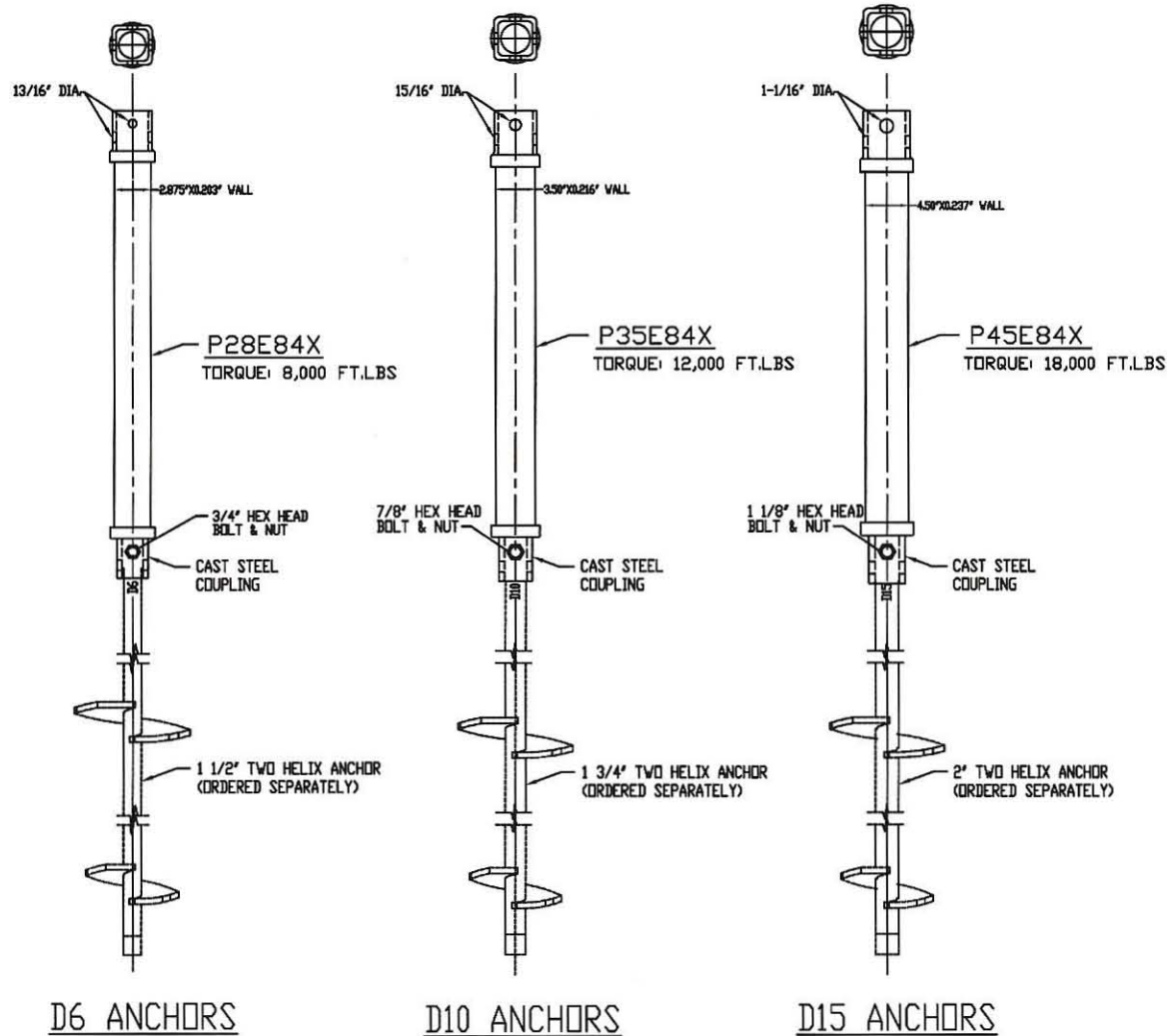
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DIXIE HFS™ 4-1/2" P45 PIPE PILES & EXTENSION

DATE: 01/09/09	SCALE: FULL	NO. P3509	R/0	SH. 1
DWN. BY: MW	CKD. BY:	APR. BY:		OF 1

MacLean DixieHFS™ extension/transition pipe piles for RCS shaft



NOTES:

1. HOT DIP GALV. PER ASTM A153, AFTER FABRICATION.
2. PIPE MATERIAL - SCHEDULE 40 PER ASTM A500 OR EQUAL.
3. COUPLER - CAST STEEL PER AISI 8260 OR SC1045 PER ASTM A958 GRADE 40/80.
4. COUPLING BOLTS: P28E84X - 3/4" DIA. X 3" GR. 5 BOLT
P35E84X - 7/8" DIA. X 3 1/2" GR. 5 BOLT,
P45E84X - 1 1/8" DIA. X 4 1/4" GR. 8 BOLT.
5. ALL WELDING TO BE DONE BY WELDERS CERTIFIED UNDER SECTION 5 OF THE AWS CODE D1.1.
6. ALL MATERIAL IS MANUFACTURED AS PER ICC-ES, AC10 ACCEPTANCE CRITERIA FOR QUALITY CONTROL DOCUMENTS



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**DIXIE HFS™ EXTENSION/TRANSITION
PIPE PILES FOR RCS SHAFT**

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DATE: 01/09/09	SCALE: FULL	NO. P3513	R/0	SH. 1
DWN. BY: MW	CKD. BY:	APR. BY:		OF 1