

LAYDOWN ANVIL SELECTION

I

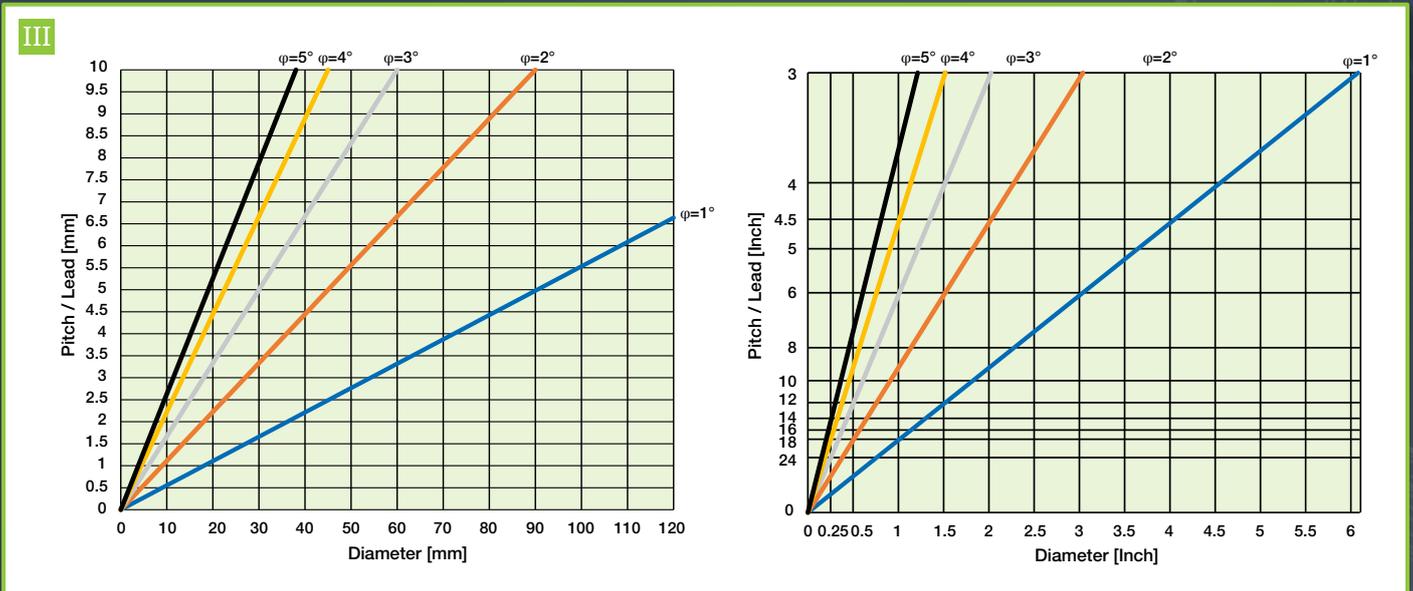
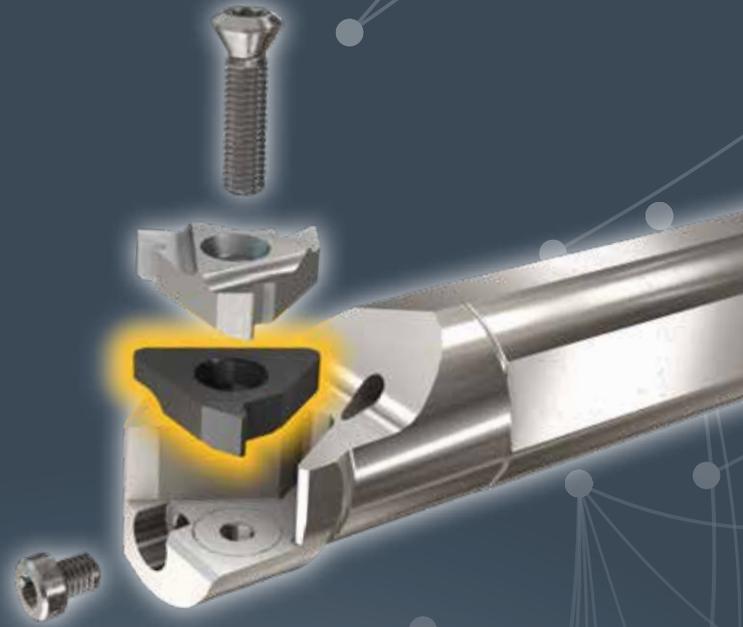
$$\arctan \varphi = \frac{P \cdot N}{3.14 \cdot D}$$

P - Pitch in mm
D - Effective diameter of thread in mm
 φ - Lead angle
N - Number of starts
Lead - P*N

II

Anvils for positive inclination angle applicable when turning RH thread with RH holders or LH thread with LH toolholders.

Anvils for negative inclination used when turning RH thread with LH holder or LH thread with RH toolholder.



IV Anvil Selection Recommendation For Symmetric Profiles (ISO, UN, W, NPT, BSPT, TRAPEZE, ACME, RD)

Thread Helix Angle φ	$\varphi \geq 5^\circ$	$4^\circ \leq \varphi < 5^\circ$	$3^\circ < \varphi \leq 4^\circ$	$2^\circ < \varphi \leq 3^\circ$	$1^\circ < \varphi \leq 2^\circ$ ⁽²⁾	$0^\circ < \varphi < 1^\circ$	$0^\circ < \varphi \leq 1^\circ$ ⁽¹⁾	$1^\circ < \varphi \leq 2^\circ$ ⁽¹⁾	$\varphi \geq 2^\circ$	
Inclination Angle β	Special solution ⁽⁴⁾	4.5°	3.5°	2.5°	1.5°	0.5°	-0.5°	-1.5°	Special solution ⁽⁴⁾	
SAGE DIN 513⁽³⁾										
Thread helix angle range			$5.7^\circ > \varphi$	$5.1^\circ < \varphi \leq 5.6^\circ$	$3.1^\circ < \varphi \leq 5^\circ$ ⁽²⁾	$2.1^\circ < \varphi \leq 3^\circ$	$1.1^\circ < \varphi \leq 2^\circ$	$0^\circ < \varphi \leq 1^\circ$		
Inclination Angle β			special solution ⁽⁴⁾	2.5°	1.5°	0.5°	-0.5°	-1.5°		
AMERICAN BUTTRESS⁽³⁾										
Thread helix angle range			$3.6^\circ > \varphi$	$3.1^\circ < \varphi \leq 3.5^\circ$ ⁽²⁾	$2.1^\circ < \varphi \leq 3^\circ$	$1.1^\circ < \varphi \leq 2^\circ$	$0^\circ < \varphi \leq 1^\circ$			
Inclination Angle β			special solution ⁽⁴⁾	1.5°	0.5°	-0.5°	-1.5°			
I (d)	Toolholder	Anvil Designation								
16	EX RH OR IN LH	Special solution ⁽⁴⁾	AE16+4.5	AE16+3.5	AE16+2.5	AE16	AE16+0.5	AE16-0.5	AE16-1.5	Special solution ⁽⁴⁾
(3/8)	EX LH OR IN RH		AI16+4.5	AI16+3.5	AI16+2.5	AI16	AI16+0.5	AI16-0.5	AI16-1.5	
22	EX RH OR IN LH		AE22+4.5	AE22+3.5	AE22+2.5	AE22	AE22+0.5	AE22-0.5	AE22-1.5	
(1/2)	EX LH OR IN RH		AI22+4.5	AI22+3.5	AI22+2.5	AI22	AI22+0.5	AI22-0.5	AI22-1.5	
27	EX RH OR IN LH		AE27+4.5	AE27+3.5	AE27+2.5	AE27	AE27+0.5	AE27-0.5	AE27-1.5	
(5/8)	EX LH OR IN RH		AI27+4.5	AI27+3.5	AI27+2.5	AI27	AI27+0.5	AI27-0.5	AI27-1.5	
22U	EX RH OR IN LH		AE22U+4.5	AE22U+3.5	AE22U+2.5	AE22U	AE22U+0.5	AE22U-0.5	AE22U-1.5	
(1/2U)	EX LH OR IN RH		AI22U+4.5	AI22U+3.5	AI22U+2.5	AI22U	AI22U+0.5	AI22U-0.5	AI22U-1.5	
27U	EX RH OR IN LH		AE27U+4.5	AE27U+3.5	AE27U+2.5	AE27U	AE27U+0.5	AE27U-0.5	AE27U-1.5	
(5/8U)	EX LH OR IN RH		AI27U+4.5	AI27U+3.5	AI27U+2.5	AI27U	AI27U+0.5	AI27U-0.5	AI27U-1.5	

- 1 - Symmetrical profiles by pulling 2 - Supplied with tool holder
- 3 - SAGE DIN513 , AMERICAN BUTTRESS profiles by pulling please contact Iscar
- 4 - Contact Iscar

