

# HYDRO-FIX® hydraulic clamping system



# Improve your productivity

HYDRO-FIX® hydraulic clamping system has successfully been used for over 15 years.

HYDRO-FIX® is excellent for boring bars for internal and external turning, driven toolholders and fine boring heads. With the one screw fix system it is quick and easy to handle. The clamping is uniform around the tool and therefore the tool life is improved. HYDRO-FIX® absorbs and reduces vibration, improves surface quality and best of all increases your productivity!

# Key to Symbols



Pressurized by torque wrench



High run-out accuracy



Vibration damping

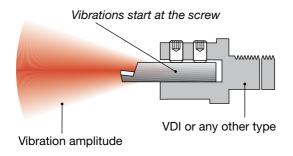


Fast set-up time

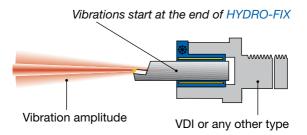


Pre-setting possibility

#### The old way



#### The new way with HYDRO-FIX®



The vibration amplitude is greatly reduced by the uniform clamping around the boring bar. HYDRO-FIX expands towards **both** the boring bar and the tool holder.



# HYDRO-FIX® NBC



# For boring bars and driven tools

- · Reduced vibrations
- Increased overhang of boring bar with 60%
- Increased speed and/ or feed = Higher productivity
- · Improved surface quality
- Increased tool life
- Quick and easy to handle with the one screw fix system

HYDRO-FIX	Dimen:		
	D3*) mm	D4 mm	D5 mm
NBC-12/16-40	12	16	57
NBC-16/20-46	16	20	59
NBC-20/25-46	20	25	59
NBC-25/32-50	25	32	67
NBC-32/40-55	32	40	75
NBC-40/50-62	40	50	94
NBC-42/50-62	42	50	94
NBC-42/60-62	42	60	100
NBC-50/60-70	50	60	100
NBC-60/80-100	60	80	117
NBC-80/100-120	80	100	142

\*) D3 = Toolbar (tolerance h7) or collet dimension to be used.

**Toolbar recommendations:** We recommend the use of of For non-cylindrical toolbars always use a collet to avoid p

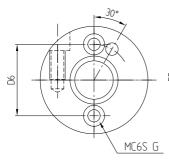


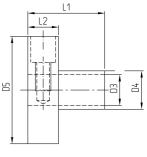






#### **Technical data**





# 

#### Notation NBC xx/xx-xx

sions			Scre DIN 915	
L1 mm	L2 mm	V°	G	D6 mm
40	16	60	M5	28
46	16	30	M5	36
46	16	30	M6	36
50	16	30	M6	44
55	16	30	M6	52
62	18	30	M6	62
62	18	30	M6	62
62	18	30	M6	76
70	18	30	M6	76
100	20	30	2 X M6	98
120	20	30	2 X M6	118

ylindrical toolbars.

astic deformation of HYDRO-FIX.

# HYDRO-FIX® NBE



#### For boring bars

- External cooling possibility
- · Reduced vibrations
- Increased overhang of boring bar with 60%
- Increased speed and/ or feed = Higher productivity
- · Improved surface quality
- · Increased tool life
- Quick and easy to handle with the one screw fix system

HYDRO-FIX	Dimensions			
	D3*) mm	D4 mm	R mm	
NBE-12/16-40	12	16	28	
NBE-16/20-46	16	20	36	
NBE-20/25-46	20	25	36	
NBE-25/32-50	25	32	44	
NBE-32/40-55	32	40	52	
NBE-42/50-62	42	50	62	
*) D3 - Toolbar (tolerance h7) or collet dimension to be used				

**Toolbar recommendations:** We recommend the use of of For non-cylindrical toolbars always use a collet to avoid p

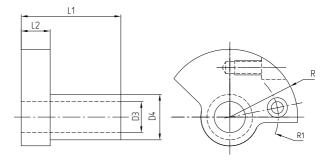




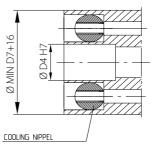




#### **Technical data**



#### Toolholder



#### Notation NBE xx/xx-xx

		Screw DIN 915, 12.9	
L1 mm	L2 mm	G	R1 mm
40	16	M5	14
46	16	M6	18
46	16	M6	18
50	16	M6	22
55	16	M6	26
62	18	M6	31

ylindrical toolbars.

astic deformation of HYDRO-FIX.

# HYDRO-FIX® NSC/NSE





- Quick pre-setting of tools outside the machine
- · Reduced vibrations
- Increased overhang with 60%
- Increased speed and/or feed = Higher productivity
- · Improved surface quality
- Increased tool life
- Quick and easy to handle with the one screw fix system

The S-type have been developed to bring down the time required to change the tools.

Tool and HYDRO-FIX can be mounted outside the machine and stored, ready to use, in your tool storage.

All HYDRO-FIX NBC and NBE dimensions are available as S-types.

# Custom designs

Following some examples of custom designs we can offer with integrated hydraulic clamping.

#### **Complete spindles**



#### **VDI** holders



#### **Fine Boring heads**



# Accessories



Spirit level
For easy toolbar
alignment use the
ETP spirit level.



Collets

For none cylindrical tool bars we recommend the use of collets.
A variety of collets are available.



**Toolholders** 

Toolholders specially adapted to HYDRO-FIX can be offered upon request.



#### **T-wrench**

For quick and easy clamping.

# It's so easy...







# The company



ETP Transmission AB have developed and manufactured hydraulic toolholders for more then 30 years. The company has built up a unique world-wide knowledge within the hydraulic fastening and centering field. Continuous development with customers has resulted in a steady flow of new products within three different business areas: metal machining, industrial woodworking and general machine building. Since 1995 the company has been certified according to ISO 9001–2000.





**SS-EN ISO 9001** 



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