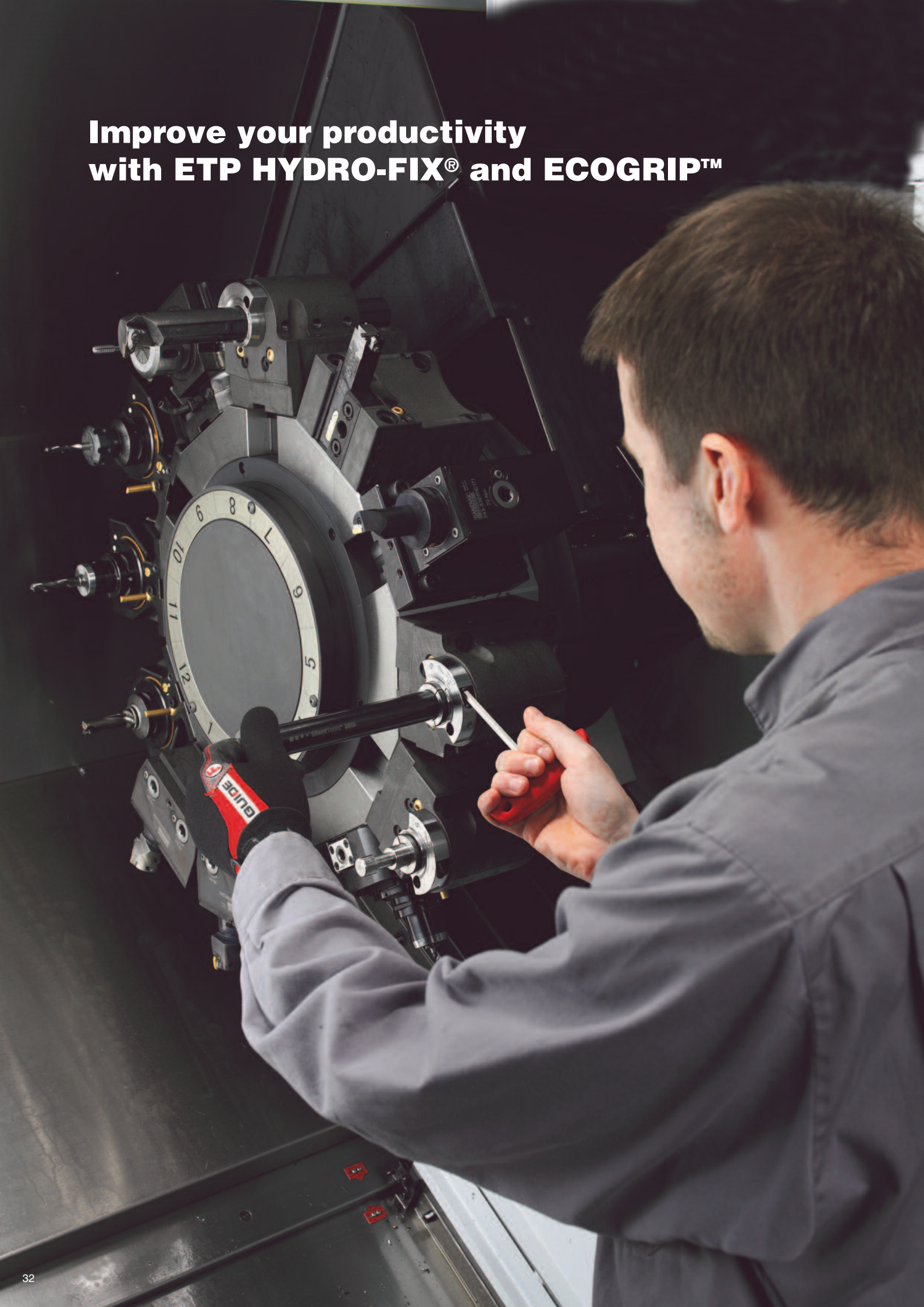
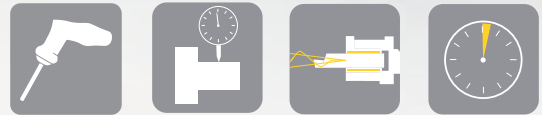


**Improve your productivity  
with ETP HYDRO-FIX® and ECOGRIP™**





**ETP HYDRO-FIX®**



**ETP ECOGRIP™**

## For boring bars and driven tools

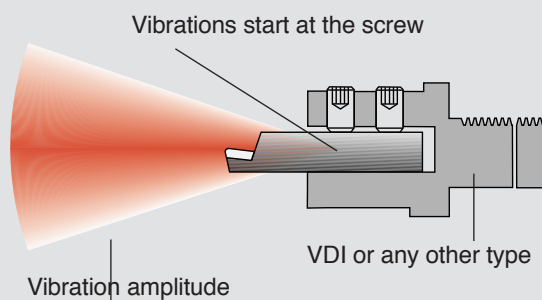
ETP HYDRO-FIX and ECOGRIP hydraulic clamping system has successfully been used for over 15 years.

The clamping system is excellent for boring bars for internal and

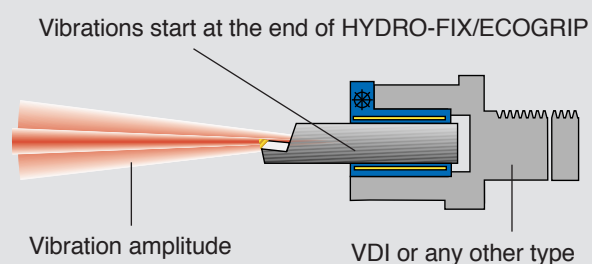
external turning, driven toolholders and fine boring heads. With the one screw fix system it is quick and easy to handle. The clamping is uniform around the tool and therefore the tool life is improved.

The clamping system absorbs and reduces vibration, improves surface quality and best of all increases your productivity!

### The old way



### The new way with ETP HYDRO-FIX/ECOGRIP



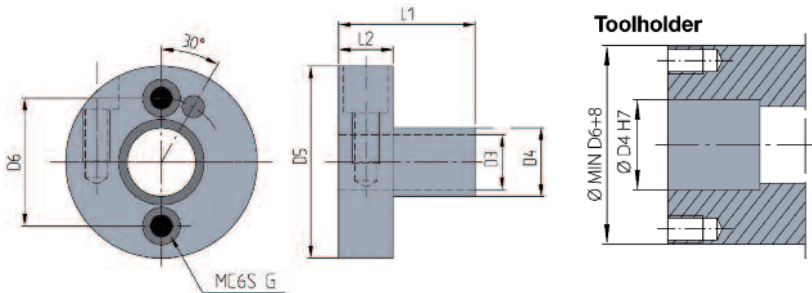
The vibration amplitude is greatly reduced by the uniform clamping around the boring bar. HYDRO-FIX/ECOGRIP expands towards **both** the boring bar and the tool holder.

• Runout accuracy < 0.006 mm

\*  $D_3$  = Toolbar (tolerance h7) or collet dimension to be used.

•  $D_4$  = Toolholder bore tolerance H7

• We recommend the use of cylindrical toolbars. For non-cylindrical toolbars always use a reducing sleeve to avoid plastic deformation of ETP HYDRO-FIX.



### Benefits and features

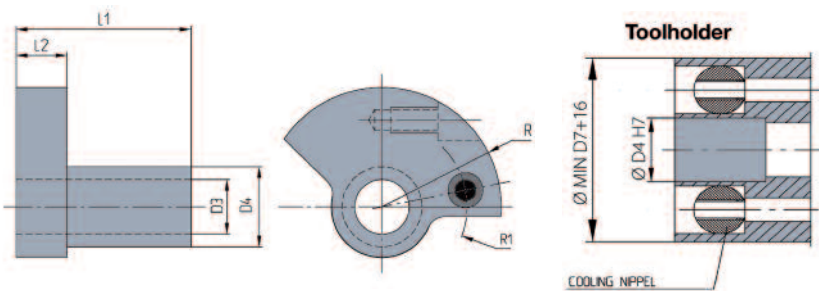
- For boring bars and driven tools
- Reduced vibrations
- Increased overhang of boring bar with 60%
- Increased speed and/or feed = Higher productivity
- Improved surface quality
- Increased tool life
- Quick and easy to handle with the one screw fix system

## ETP HYDRO-FIX® NBC

Hydraulic high precision clamping system

### Technical Specification

Part no.	Item description	$D_3^*$	$D_4$	Dimensions, mm				Screw DIN 915, 12.9	
				$D_5$	$l_1$	$l_2$	$V^\circ$	$G$	$D_6$
851210	NBC-12/16-40	12	16	57	40	16	60	M5	28
851610	NBC-16/20-46	16	20	59	46	16	30	M5	36
852010	NBC-20/25-46	20	25	59	46	16	30	M6	36
852510	NBC-25/32-50	25	32	67	50	16	30	M6	44
853210	NBC-32/40-55	32	40	75	55	16	30	M6	52
854010	NBC-40/50-62	40	50	94	62	18	30	M6	62
854210	NBC-42/50-62	42	50	94	62	18	30	M6	62
855010	NBC-50/60-70	50	60	100	70	18	30	M6	76
856010	NBC-60/80-100	60	80	117	100	20	30	2 X M6	98
858010	NBC-80/100-120	80	100	142	120	20	30	2 X M6	118



## ETP HYDRO-FIX® NBE

Hydraulic high precision clamping system

### Technical Specification

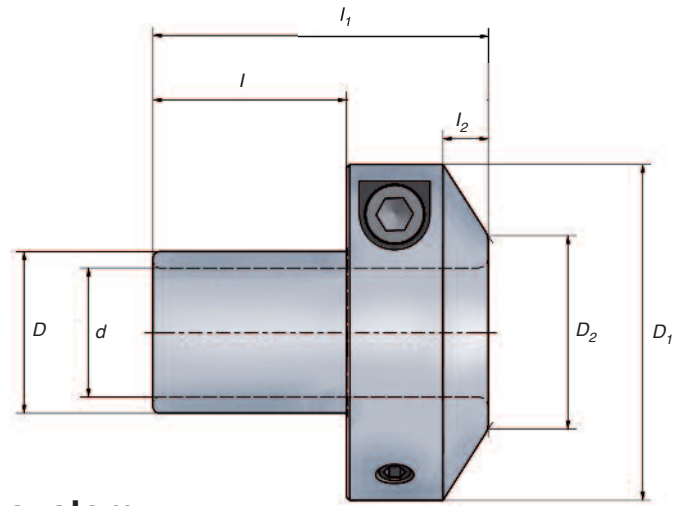
Part no.	Item description	$D_3^*$	$D_4$	Dimensions, mm			Screw DIN 915, 12.9	
				$R$	$l_1$	$l_2$	$G$	$R1$
852030	NBE-20/25-46	20	25	36	46	16	M6	18
852530	NBE-25/32-50	25	32	44	50	16	M6	22
853230	NBE-32/40-55	32	40	52	55	16	M6	26
854230	NBE-42/50-62	42	50	62	62	18	M6	31

Runout accuracy < 0.015 mm

\* d = Toolbar (tolerance h7) or reducing sleeve dimension to be used.

• D = Toolholder bore tolerance H7

• We recommend the use of cylindrical toolbars. For non-cylindrical toolbars we recommend the use of a reducing sleeve to avoid plastic deformation of ETP ECOGRIP.



## ETP ECOGRIP®

### Hydraulic high precision clamping system

#### Technical Specification

Part no.	Item description	Dimensions, mm						
		d	D	D <sub>1</sub>	D <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>
● 686820	ECOGRIP-20/25-52	20	25	52	30	30	52	7
● 686825	ECOGRIP-25/32-56	25	32	59	35	34	56	7
● 686832	ECOGRIP-32/40-60	32	40	69,5	42	38	60	7
● 686819	ECOGRIP-3/4"/1"-52	19,05	25,4	52	30	30	52	7
● 686826	ECOGRIP-1"/1 1/4"-56	25,4	31,75	59	35	34	56	7



#### Accessories

##### Digital Spirit level

For easy toolbar alignment use the ETP Digital Spirit level.

Most NC operated turret lathes have a slide tilting 30 to 45 degrees. When the lathe is in operation the turret will move along its slide. Thus, if the turret is tilting 40 degrees, then the milled down reference surface of the tool bar must have the same tilt angle.

For this reason a quick and reliable method using the ETP Digital Spirit level equipped with a strong magnet, has been developed.

Item description	Part no.
● ETP Digital Spirit level	885010

- From stock
- On request